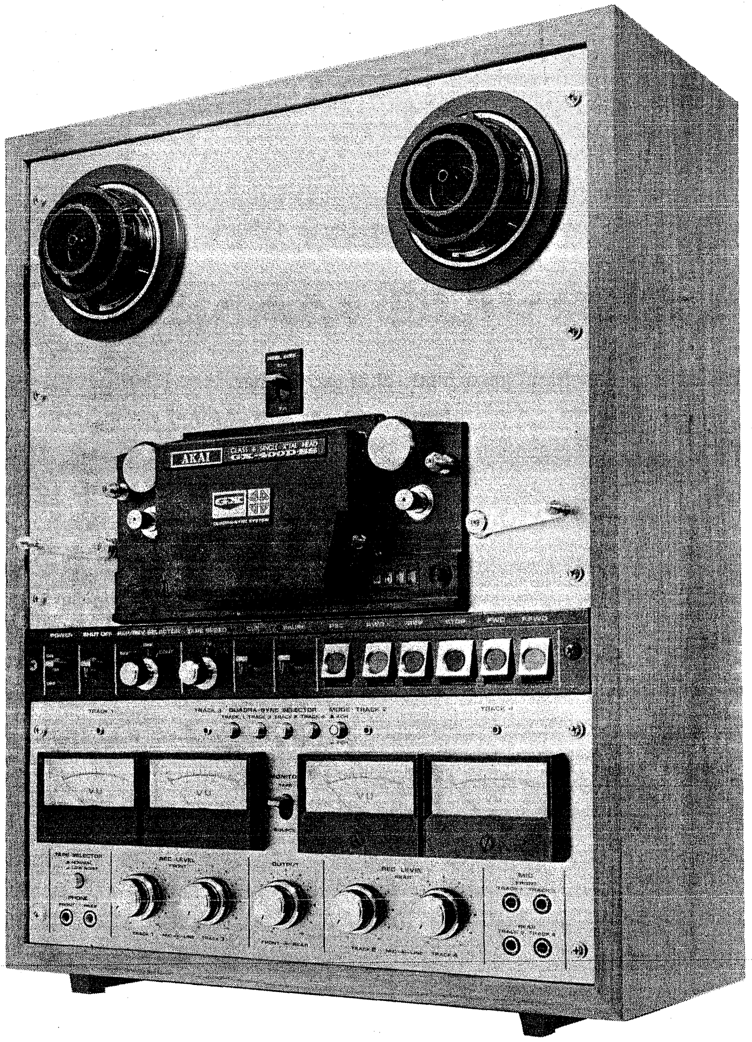

4-CH/STEREO TAPE DECK

MODEL GX-400D-SS

THIS MANUAL MUST BE USED AS A SET TOGETHER WITH SEPARATELY PUBLISHED GX-400D SERVICE MANUAL AND PARTS LIST

SECTION 1 SERVICE MANUAL 2
SECTION 2 PARTS LIST 23
SECTION 3 SCHEMATIC DIAGRAM 36

SECTION 1

SERVICE MANUAL

Except for the parts which have been changed as per List 1 below, the composite parts of Model GX-400D-SS are identical to those of Model GX-400D. Therefore, for general repairs and adjustments etc., please refer to GX-400D Service Manual

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IV. AMP. SYSTEM ADJUSTMENTS 7
V. D.C. RESISTANCES OF VARIOUS COILS 16
VI. COMPOSITE VIEWS OF COMPONENTS 17

I. REFERENCE FOR REPAIR AND ADJUSTMENT OF MODEL GX-400D-SS

When making adjustment on repairs of Model GX-400D-SS Mechanism System or for Measurement Methods, Sys. Con., A.C. Servo Operating. Principals, etc., kindly refer to the following sections of Model GX-400D Service Manual:

Measuring Method: Pages 8 and 9
Mechanism Adjustment: Pages 12 through 19
Explanation of A.C. Servo Control Operation:
  Pages 31 through 34
Transport Mechanism: Pages 37 through 40

CLASSIFICATION AND INTERCHANGEABILITY OF VARIOUS P.C. BOARDS

Models / P.C. Boards	GX-400D-SS	GX-400D	GX-400D-PRO
Servo Control P.C. Board	TW-1049	TW-1049	TW-1049
System Control P.C. Board	TW-1048	*TW-1048	TW-1201
System Control (B) P.C. Board	TW-1301	----------	----------
Power Supply P.C. Board	TW-2018	TW-2018	TW-2018
Direction P.C. Board	TW-2057	----------	TW-2057
P.B. Amp. P.C. Board	TW-5314	TW-5032	*TW-5032
Rec. Amp. P.C. Board	NS-5023	----------	----------
Rec. Amp. & ADR P.C. Board	---------	TW-5206	*TW-5206
Osc. P.C. Board	TW-5313	TW-5033	TW-5204
EQ. SW. P.C. Board	TW-5310	TW-5028	TW-5028
Volume P.C. Board	TW-5323	TW-5030	TW-5030
Selector P.C. Board	TW-5311	----------	----------
Track Selector P.C. Board	----------	TW-5026	----------
P.B. Mode P.C. Board	----------	----------	TW-5203
Dummy P.C. Board	TW-5315	----------	----------
SRT SW. P.C. Board	----------	TW-5029	*TW-5029
Headphone P.C. Board	TW-5312	----------	----------
Monitor SW. P.C. Board	----------	TW-5027	TW-5027
Chassis P.C. Board	----------	TW-5025	----------

NOTE: * ... No Interchangeable

II. SPECIFICATIONS

An asterisk next to a figure indicates the minimum guaranteed performance.

TRACK SYSTEM		4 track 4 channel stereo, monaural Recording/Playback	
TAPE SPEED		15, 7-1/2 and 3-3/4 ips. ± 1.5%	
WOW AND FLUTTER		Less than 0.035%(*0.06%) R.M.S. at 15 ips. Less than 0.05% (*0.09%) R.M.S. at 7-1/2 ips. Less than 0.08% (*0.15%) R.M.S. at 3-3/4 ips.	
FREQUENCY RESPONSE	LOW NOISE TAPE (S.R.T. TAPE etc.)	20 to 27,000 Hz (*30 to 25,000 Hz±3 dB) at 15 ips. 20 to 26,000 Hz (*30 to 24,000 Hz±3 dB) at 7-1/2 ips. 30 to 18,000 Hz (*30 to 15,000 Hz±3 dB) at 3-3/4 ips.	
	NORMAL TAPE (FUJI S-100 etc.)	20 to 26,000 Hz (*30 to 24,000 Hz±3 dB) at 15 ips. 20 to 24,000 Hz (*30 to 22,000 Hz±3 dB) at 7-1/2 ips. 30 to 16,000 Hz (*30 to 13,000 Hz±3 dB) at 3-3/4 ips.	
TOTAL DISTORTION FACTOR		*Less than 2% at 1,000 Hz 0 VU recording (SCOTCH #111 Tape)	
OUTPUTS	LINE OUTPUT	4±1 dB/FWD, 4±1.5 dB/REV using a 15 ips. 7000 Hz 0 VU recorded tape at 15 ips.	
	DIN OUTPUT	0.6V	
	HEADPHONE OUTPUT	50±10 mV(8Ω load), 1,000 Hz 0 VU at Headphone Volume Maximum	
INPUTS	MIC INPUT	0.5 mV	
	LINE INPUT	100 mV	
	DIN INPUT	10 mV(Low), 60 mV(High)	
RECORDING/PLAYBACK LEVEL		4±1.5 dB, 1,000 Hz 0 VU recording at 7-1/2 ips. (SCOTCH #111 Tape)	
SIGNAL TO NOISE RATIO		*Better than 48 dB Normal *Better than 40 dB Quadra Sync.	
CROSS TALK		Better than 40 dB at 1,000 Hz 3 VU recording	
ERASE RATIO		Better than 70 dB at 1,000 Hz 3 VU recording	
RECORDING BIAS FREQUENCY		100±5 kHz	
BIAS LEAK		Less than -20 VU	
REVERSING TIME		Within 4 sec. at 15 ips. Within 3 sec. at 7-1/2 ips, 3-3/4 ips.	
F.FWD AND RWD TIME		120/100 sec. using a 2,400 ft. tape at 50/60 Hz	
MOTORS	CAPSTAN MOTOR	4 pole eddy current A.C. servo motor Type: SCM3-16TW Revolutions: 800 r.p.m. at 15 ips. 400 r.p.m. at 7-1/2 ips. 200 r.p.m. at 3-3/4 ips.	
	REEL MOTOR	Two 6 pole eddy current inner rotor motors. Type: IM-24TW Revolutions: 1,000/1,200 r.p.m. at 50/60 Hz	
HEADS	ERASE HEAD	Type: E4-260 Gap: 0.6 mm Impedance: 195Ω ± 10% D.C. Resistance: 3.5Ω at 100 kHz	
	RECORDING HEAD	Type: R4-285 Gap: 4 micron±15% Impedance: 16Ω±15% at 1 kHz D.C. Resistance: 13Ω	
	PLAYBACK HEAD	Type: P4-280 Gap: 1.7 micron±15% Impedance: 1,346Ωat 1 kHz D.C. Resistance: 350Ω	
TRANSISTORS		2SA564(Q)(R) . . . 3	2SC945(Q)(R) . . . 2
		2SA628(D)(E) . . . 4	2SC968(2)(3) . . . 3
		2SA696 . . . 1	2SC971 . . . 1
		2SC458LG(C) . . . 20	2SC1014(C)(D) . . . 1
		2SC711(D)(E)(F) . . . 46	2SC1211(C)(D) . . . 1
		2SC711(E2) . . . 2	2SC1247A(B)(V)(Y) . . . 9
		2SC792 . . . 1	2SD234(Q)(R) . . . 1

I.C.	LD3141 . . . 4	
DIODES	1S1588 . . . 56	WG713 . . . 6
	10D05 . . . 12	10DC2(Blk) . . 1
	10D1 . . . 6	10DC2(Red) . . . 1
	10D4 . . 7	5B2 . . . 1
ZENER DIODES	WZ065 . . . 1	RD7A(L) . . . 3
	YZ088A . . . 2	RD9A(L) . . . 4
THERMISTER	31D26 . . . 1	
POWER SUPPLY	100 to 240V A.C. 50/60 Hz	
POWER CONSUMPTION	160W maximum	
INSULATION RESISTANCE	More than 50 MΩ	
DIMENSIONS	457(W)x590(H)x240(D)mm (18"x23.2"x9.5")	
WEIGHT	31.2 kg (68.7 lbs.)	

NOTE: Specifications subject to change without notice.

III. HEAD ADJUSTMENT

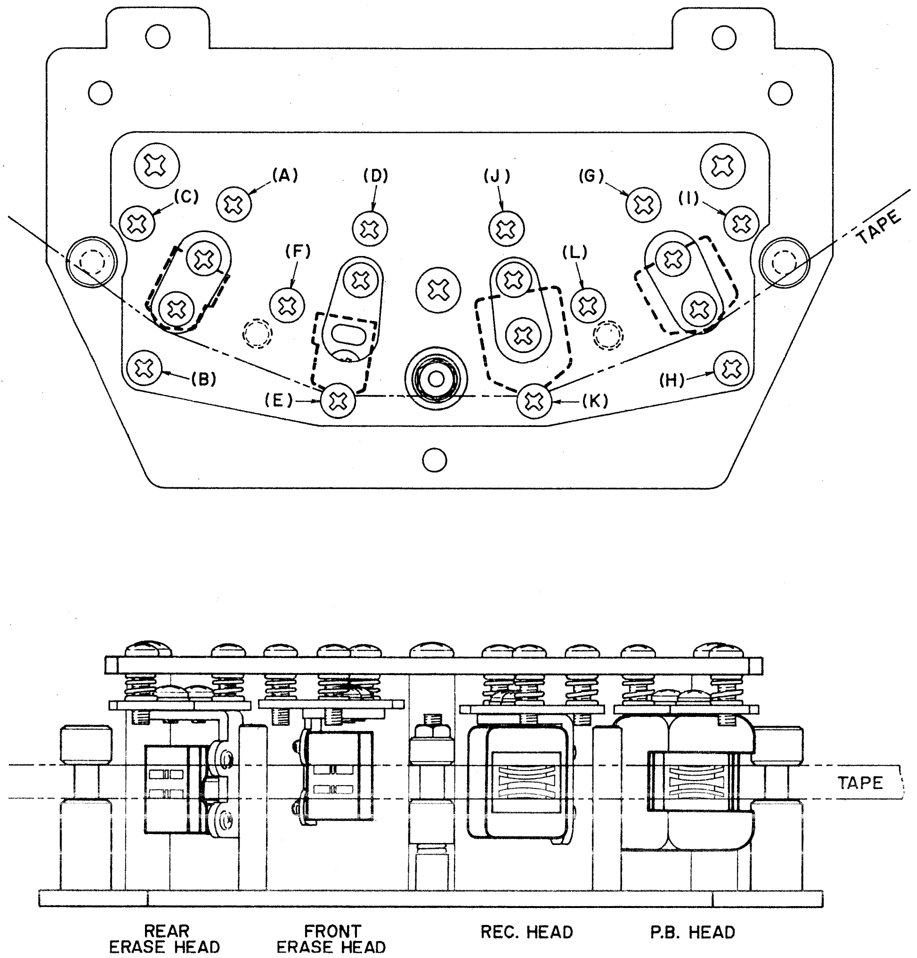


Fig. 1

Adjustment Items	Test Tape Supply Signal	Measuring Instrument Connection	Mode	Tape Speed	Adjustment Screw	Remarks
Rear CH. Erase Head Height Adjustment	Optional		FWD	Optional	(A)(B)(C)	Even Lower Edge of CH.4 Head core and Lower edge of tape
Front CH. Erase Head Height Adjustment	Optional		FWD	Optional	(D)(E)(F)	Even Upper edge of CH.1 Head core and Upper edge of Tape
Recording Head Height Adjustment	Optional		FWD	Optional	(J)(K)(L)	Even Upper edge of CH.1 Head core and Upper edge of Tape
Playback Head Height Adjustment	Optional		FWD	Optional	(G)(H)(I)	Even Upper edge of CH.1 Head core and Upper edge of Tape
Playback Head Azimuth Alignment Adjustment	15,000 Hz 15 ips. Test Tape	High Sensitivity V.T.V.M. to Line Output	FWD	15 ips.	(I)	Maximum Line Output Level on All Channels
Recording Head Azimuth Alignment Adjustment	15,000 Hz −16 dB Signal to Line Input	Audio Frequency Oscillator to Line Input and High Sensitivity V.T.V.M. to Line Output	REC	15 ips.	(L)	Maximum Line output Level on All Channels

Chart 1

IV. AMP. SYSTEM ADJUSTMENTS

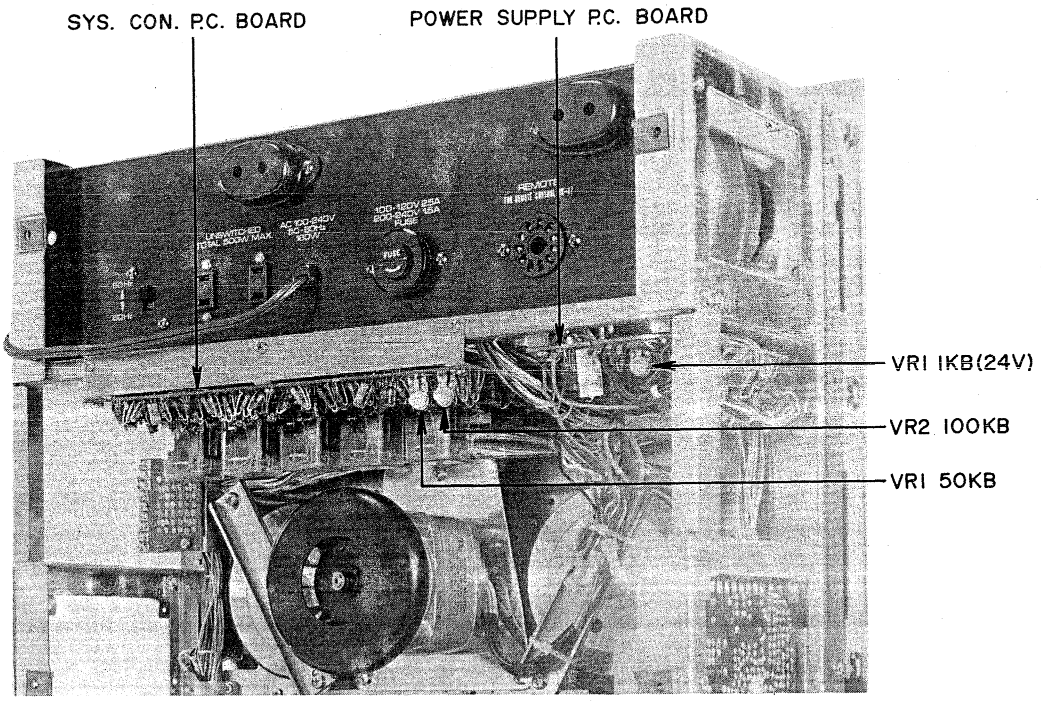

SYS. CON. P.C. BOARD
POWER SUPPLY P.C. BOARD
VR1 1KB(24V)
VR2 100KB
VR1 50KB
REMOTE
FUSE

Fig. 2

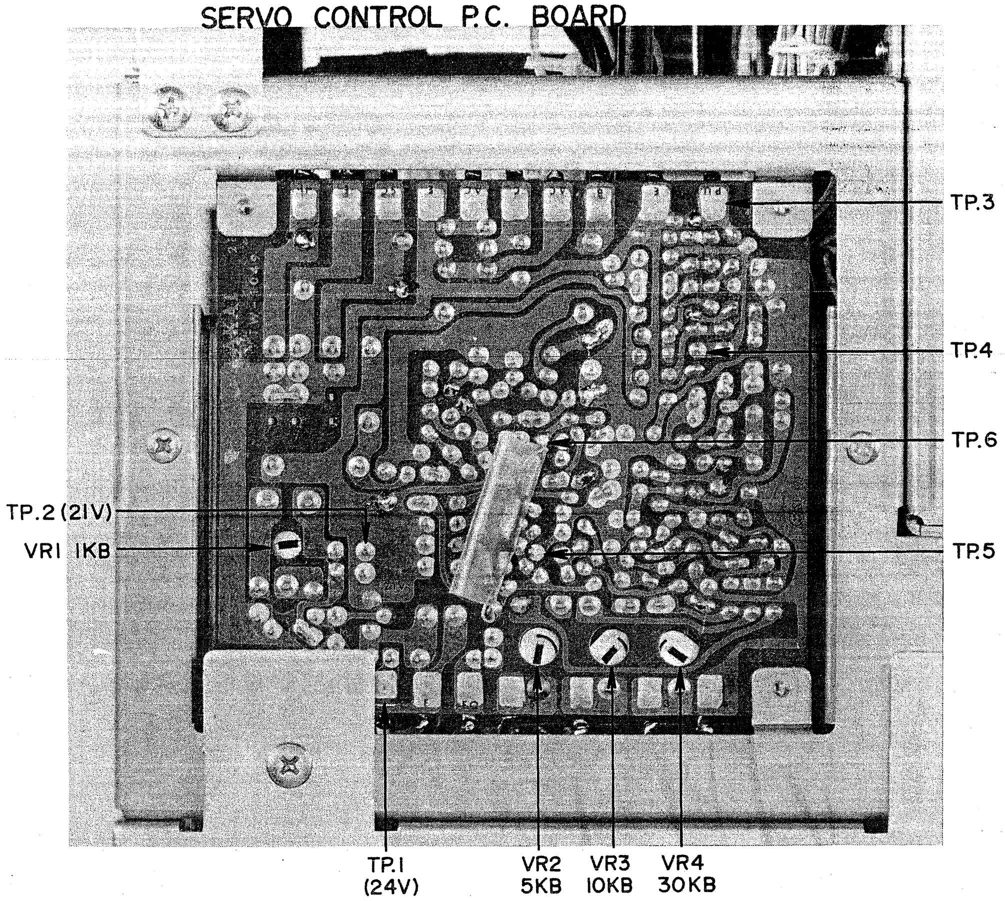

SERVO CONTROL P.C. BOARD
TP.3
TP.4
TP.6
TP.2 (21V)
VR1 1KB
TP.5
TP.1 (24V)
VR2 5KB
VR3 10KB
VR4 30KB

Fig. 3

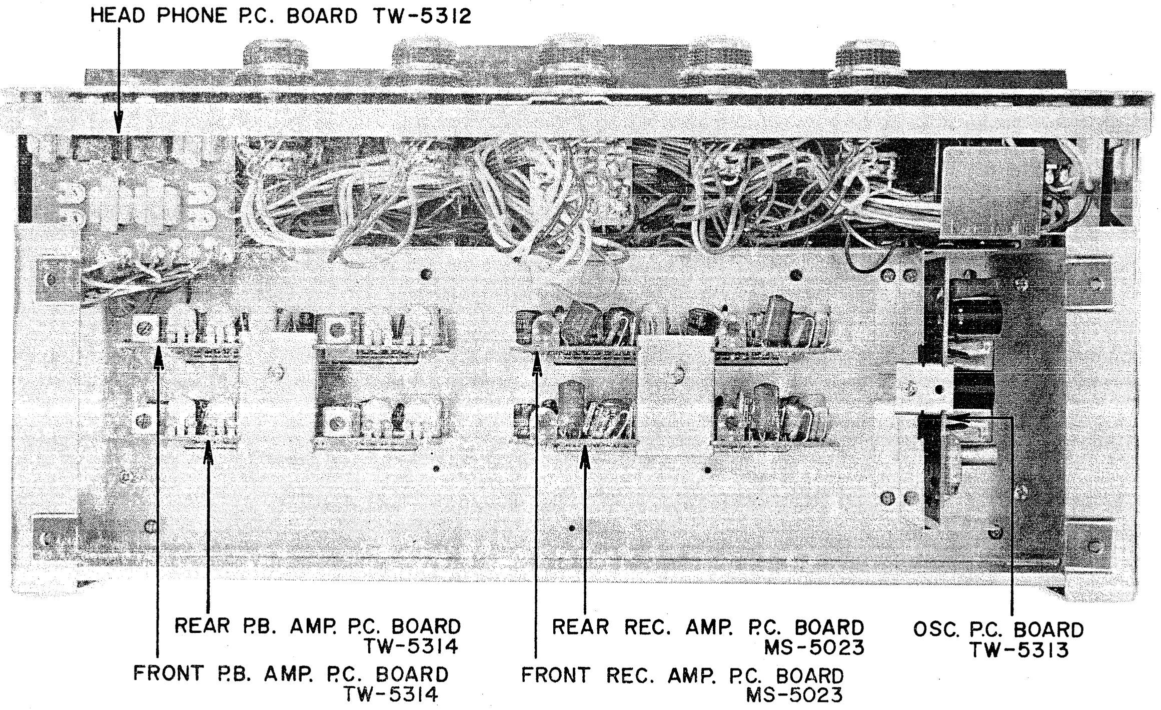

HEAD PHONE P.C. BOARD TW-5312
REAR P.B. AMP. P.C. BOARD TW-5314
FRONT P.B. AMP. P.C. BOARD TW-5314
REAR REC. AMP. P.C. BOARD MS-5023
FRONT REC. AMP. P.C. BOARD MS-5023
OSC. P.C. BOARD TW-5313

Fig. 4

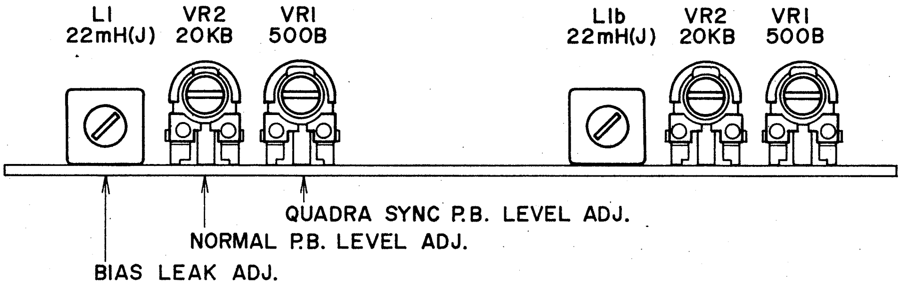

L1
22mH(J)
VR2
20KB
VR1
500B
L1b
22mH(J)
VR2
20KB
VR1
500B
QUADRA SYNC P.B. LEVEL ADJ.
NORMAL P.B. LEVEL ADJ.
BIAS LEAK ADJ.

Fig. 5 P.B. AMP. P.C. BOARD TW-5314

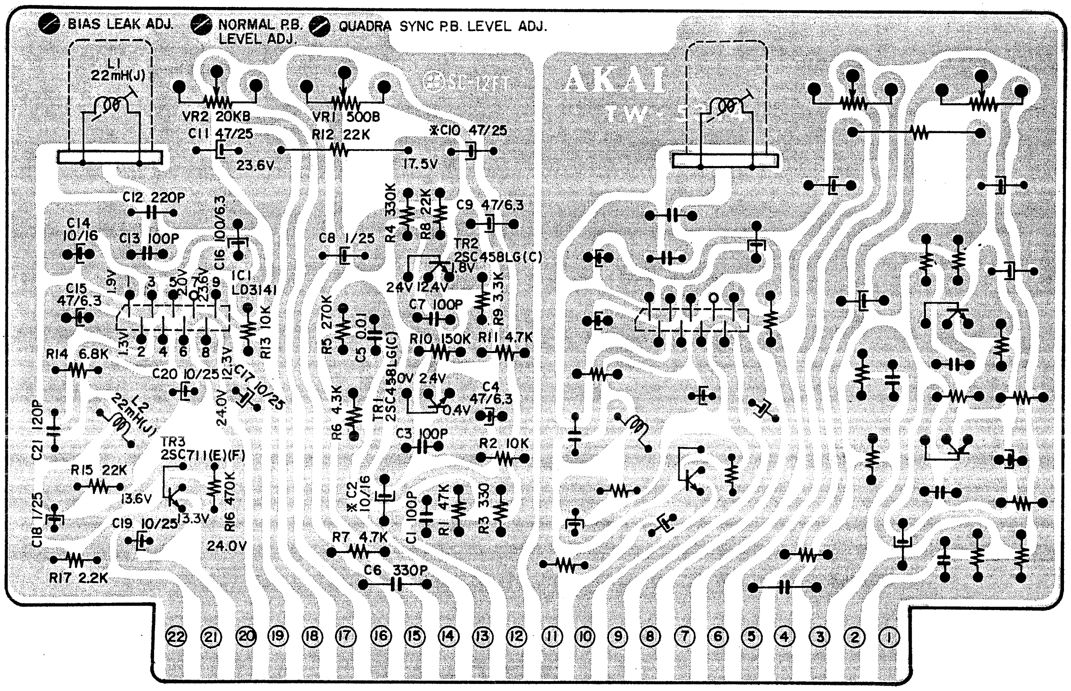

BIAS LEAK ADJ.
NORMAL P.B. LEVEL ADJ.
QUADRA SYNC P.B. LEVEL ADJ.
L1 22mH(J)
VR2 20KB
VR1 500B
SC-12FT
AKAI
TW-
C11 47/25
23.6V
R12 22K
※C10 47/25
17.5V
C12 220P
C14 10/16
C13 100P
C16 100/6.3
R4 330K
R8 22K
C9 47/6.3
C8 1/25
TR2 2SC458LG(C)
1.8V
24V 12.4V
C15 47/6.3
1.9V
1 3 5 7 9
2.0V
23.6V
IC1 LD3141
1.3V
2 4 6 8
R13 10K
R5 270K
C5 0.01
C7 100P
R9 3.3K
R10 150K
R11 4.7K
R14 6.8K
C20 10/25
12.3V
C17 10/25
24.0V
0V 2.4V
0.4V
C4 47/6.3
TR1 2SC458LG(C)
R6 4.3K
C21 120P
L2 22mH(J)
TR3 2SC711(E)(F)
C3 100P
R2 10K
R15 22K
13.6V
R16 470K
13.3V
※C2 10/16
C1 100P
R1 47K
R3 330
C18 1/25
C19 10/25
24.0V
R7 4.7K
R17 2.2K
C6 330P
22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

Fig. 6 P.B. AMP. P.C. BOARD TW-5314 (REVERSE)

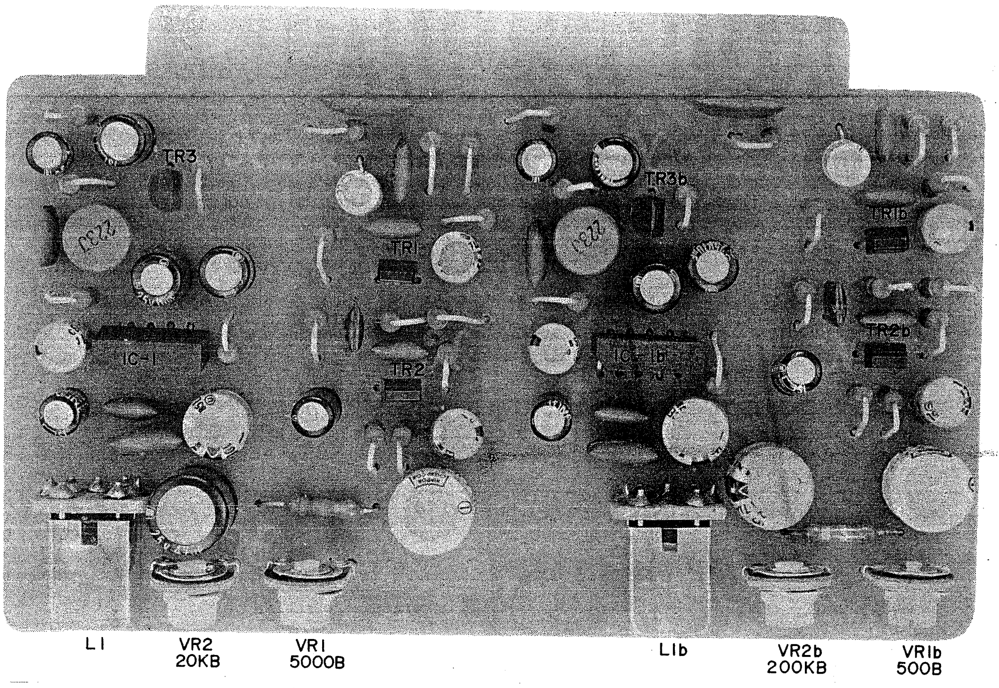

TR3
TR1
IC-1
TR2
TR3b
TR1b
IC-1b
TR2b
L1
VR2
20KB
VR1
5000B
L1b
VR2b
200KB
VR1b
500B

Fig. 7 P.B. AMP. P.C. BOARD TW-5314 (FACE)

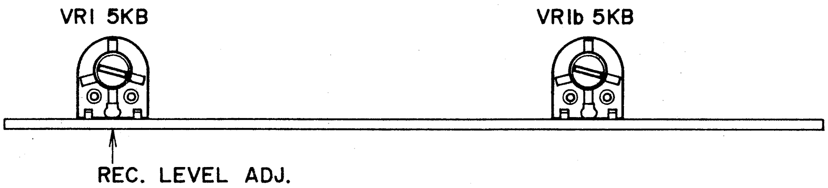

VR1 5KB
VR1b 5KB
REC. LEVEL ADJ.

Fig. 8 REC. AMP. P.C. BOARD MS-5023

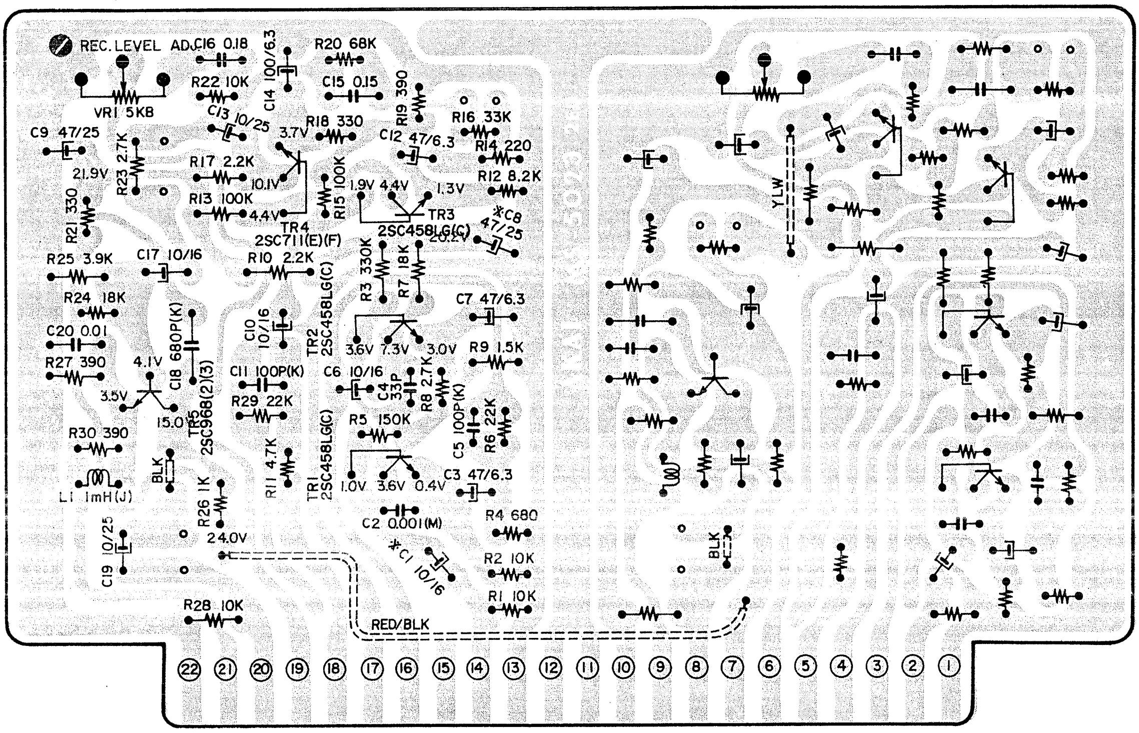

REC. LEVEL ADJ.
C16 0.18
C14 100/6.3
R20 68K
R22 10K
C15 0.15
R19 390
VR1 5KB
C13 10/25
R18 330
R16 33K
C9 47/25
R23 2.7K
3.7V
C12 47/6.3
R14 220
21.9V
R17 2.2K
10.1V
R15 100K
1.9V
4.4V
1.3V
R12 8.2K
R13 100K
4.4V
TR3
R21 330
TR4
2SC711(E)(F)
2SC458LG(C)
*C8 47/25
20.2V
R25 3.9K
C17 10/16
R10 2.2K
R3 330K
R7 18K
R24 18K
C7 47/6.3
C20 0.01
C18 680P(K)
C10 10/16
TR2 2SC458LG(C)
3.6V
7.3V
3.0V
R9 1.5K
R27 390
4.1V
C11 100P(K)
C6 10/16
C4 33P
R8 2.7K
3.5V
R29 22K
C5 100P(K)
R6 22K
15.0V
TR5 2SC968(2)(3)
R5 150K
R30 390
TR1 2SC458LG(C)
BLK
R11 4.7K
1.0V
3.6V
0.4V
C3 47/6.3
L1 1mH(J)
R26 1K
C2 0.001(M)
R4 680
C19 10/25
24.0V
*C1 10/16
R2 10K
R28 10K
R1 10K
RED/BLK
YLW
BLK
MS-5023
㉒ ㉑ ⑳ ⑲ ⑱ ⑰ ⑯ ⑮ ⑭ ⑬ ⑫ ⑪ ⑩ ⑨ ⑧ ⑦ ⑥ ⑤ ④ ③ ② ①

Fig. 9 REC. AMP. P.C. BOARD MS-5023 (REVERSE)

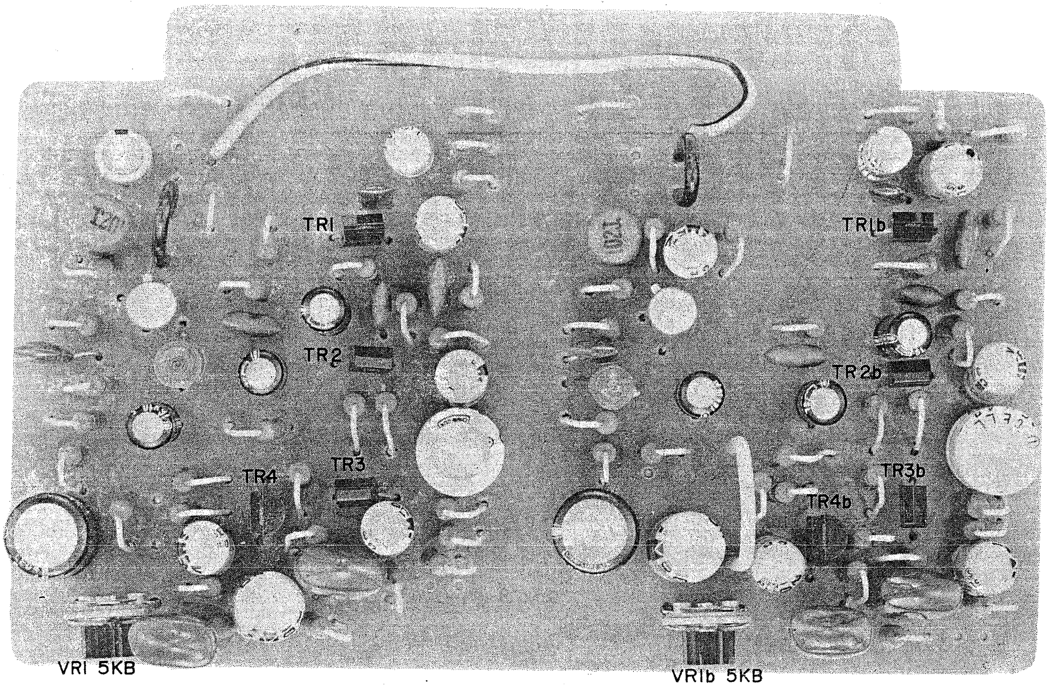

TR1
TR1b
TR2
TR2b
TR4
TR3
TR4b
TR3b
VR1 5KB
VR1b 5KB

Fig. 10 REC. AMP. P.C. BOARD MS-5023 (FACE)

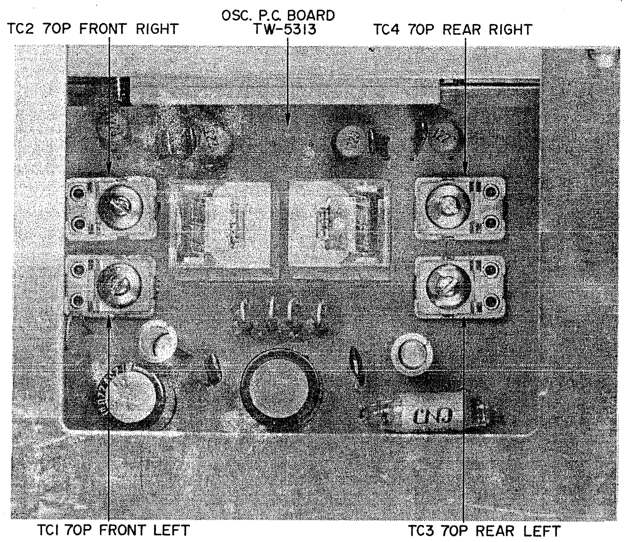

TC2 70P FRONT RIGHT
OSC. P.C. BOARD
TW-5313
TC4 70P REAR RIGHT
TC1 70P FRONT LEFT
TC3 70P REAR LEFT

Fig. 11

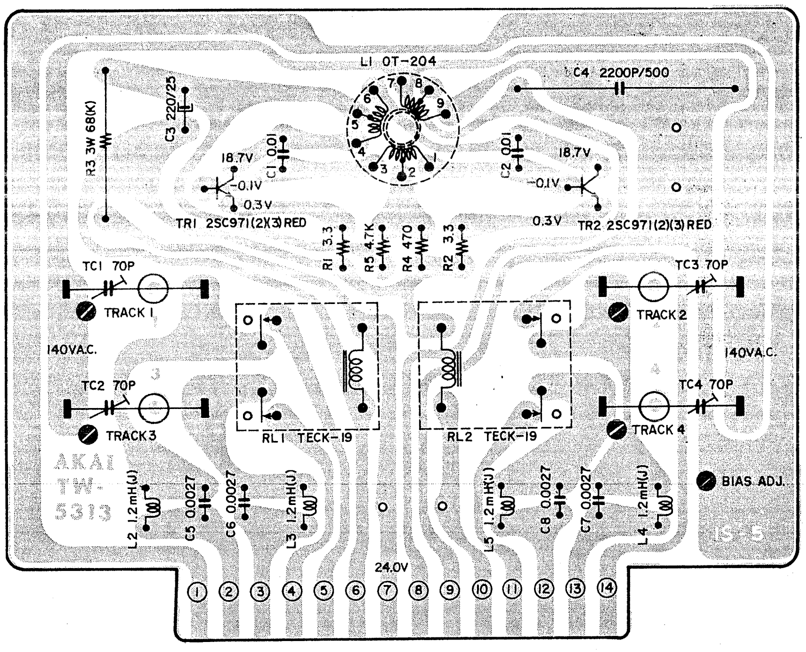

L1 OT-204
C4 2200P/500
R3 3W 68(K)
C3 220/25
C1 0.01
C2 0.01
18.7V
-0.1V
0.3V
TR1 2SC971(2)(3) RED
TR2 2SC971(2)(3) RED
R1 3.3
R5 4.7K
R4 470
R2 3.3
TC1 70P
TRACK 1
140VA.C.
TC2 70P
TRACK 3
TC3 70P
TRACK 2
TC4 70P
TRACK 4
RL1 TECK-19
RL2 TECK-19
BIAS ADJ.
AKAI
TW-
5313
L2 1.2mH(J)
C5 0.0027
C6 0.0027
L3 1.2mH(J)
L5 1.2mH(J)
C8 0.0027
C7 0.0027
L4 1.2mH(J)
24.0V
1S-5
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

Fig. 12 OSC. P.C. BOARD TW-5313 (REVERSE)

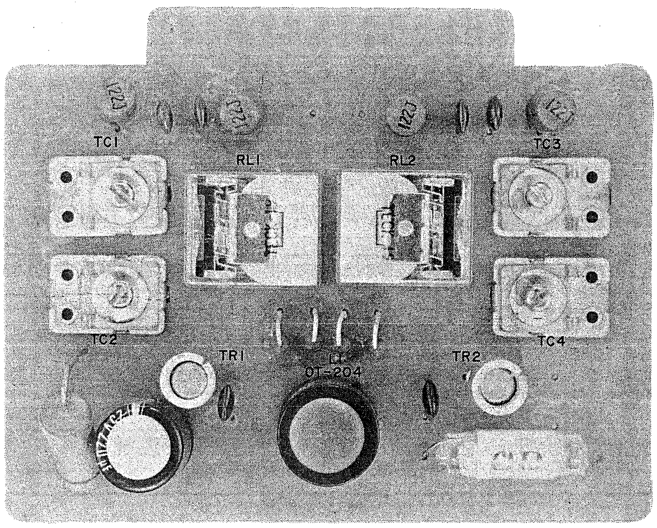

TC1
RL1
RL2
TC3
TC2
TR1
L1
OT-204
TR2
TC4

Fig. 13 OSC. P.C. BOARD TW-5313 (FACE)

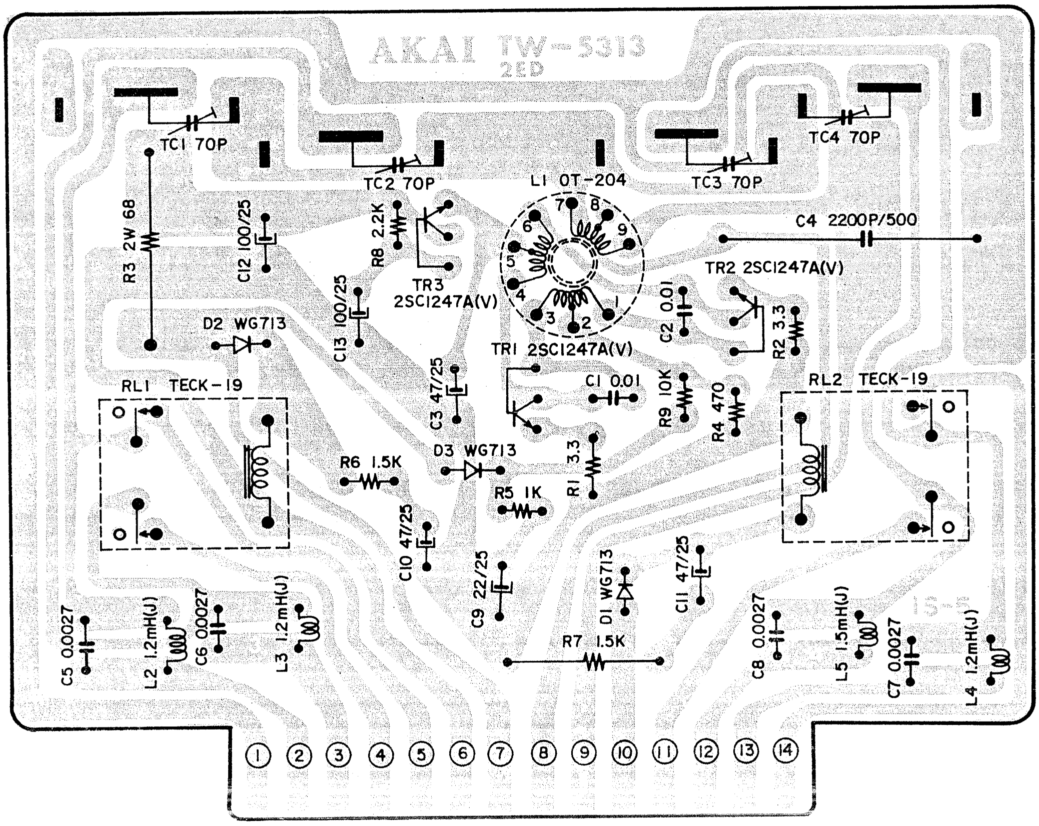

AKAI TW-5313
2ED
TC1 70P
TC2 70P
TC3 70P
TC4 70P
L1 OT-204
C4 2200P/500
R3 2W 68
C12 100/25
R8 2.2K
TR3
2SC1247A(V)
C13 100/25
TR2 2SC1247A(V)
C2 0.01
R2 3.3
D2 WG713
TR1 2SC1247A(V)
C3 47/25
C1 0.01
R9 10K
R4 470
RL1 TECK-19
RL2 TECK-19
R6 1.5K
D3 WG713
R5 1K
R1 3.3
C10 47/25
C9 22/25
D1 WG713
C11 47/25
R7 1.5K
C5 0.0027
L2 1.2mH(J)
C6 0.0027
L3 1.2mH(J)
C8 0.0027
L5 1.5mH(J)
C7 0.0027
L4 1.2mH(J)
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

Fig. 14 OSC. P.C. BOARD TW-5313-2ED (REVERSE)

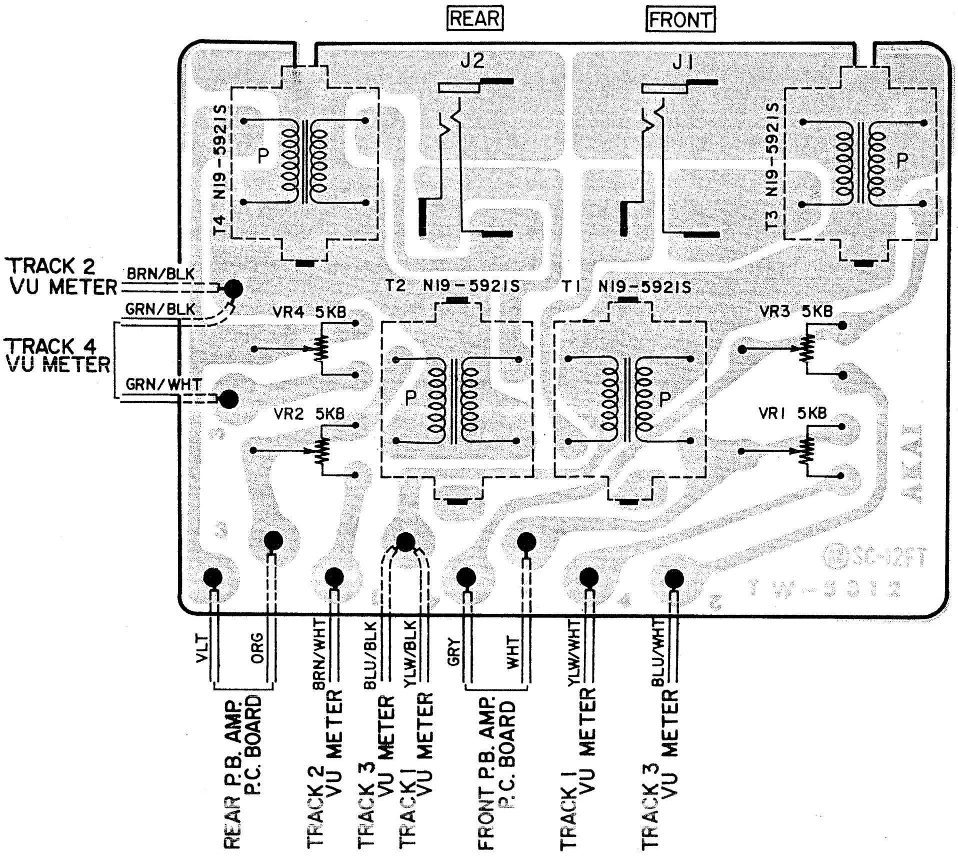

REAR
FRONT
J2
J1
T4 N19-5921S
T3 N19-5921S
P
P
TRACK 2 VU METER
BRN/BLK
GRN/BLK
TRACK 4 VU METER
GRN/WHT
VR4 5KB
T2 N19-5921S
T1 N19-5921S
VR3 5KB
P
P
VR2 5KB
VR1 5KB
AKAI
SC-12FT
TW-5312
VLT
ORG
BRN/WHT
BLU/BLK
YLW/BLK
GRY
WHT
YLW/WHT
BLU/WHT
REAR P.B. AMP. P.C. BOARD
TRACK 2 VU METER
TRACK 3 VU METER
TRACK 1 VU METER
FRONT P.B. AMP. P.C. BOARD
TRACK 1 VU METER
TRACK 3 VU METER

Fig. 15 HEAD PHONE P.C. BOARD TW-5312 (REVERSE)

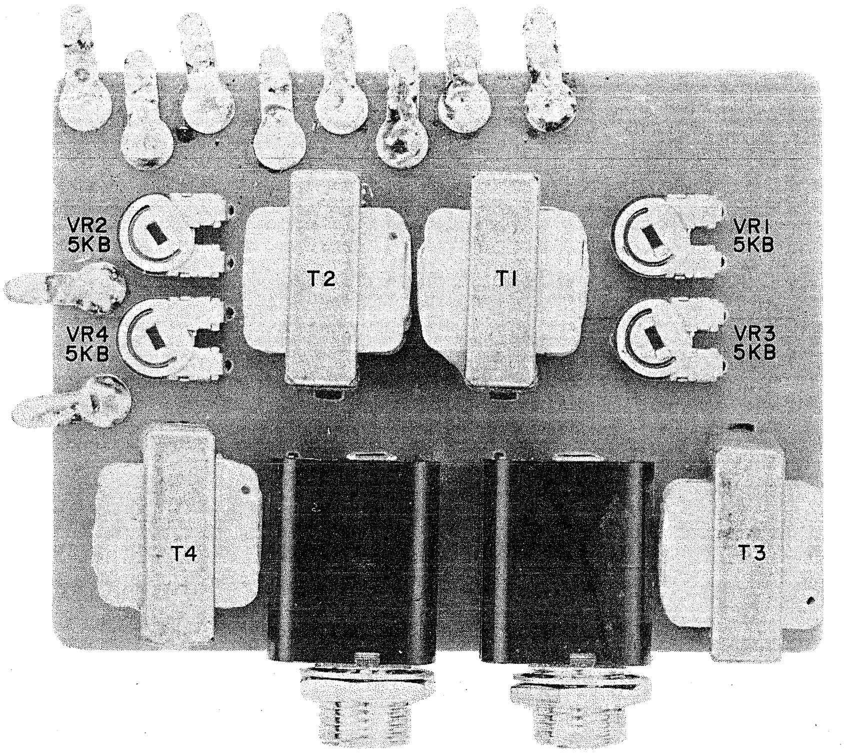
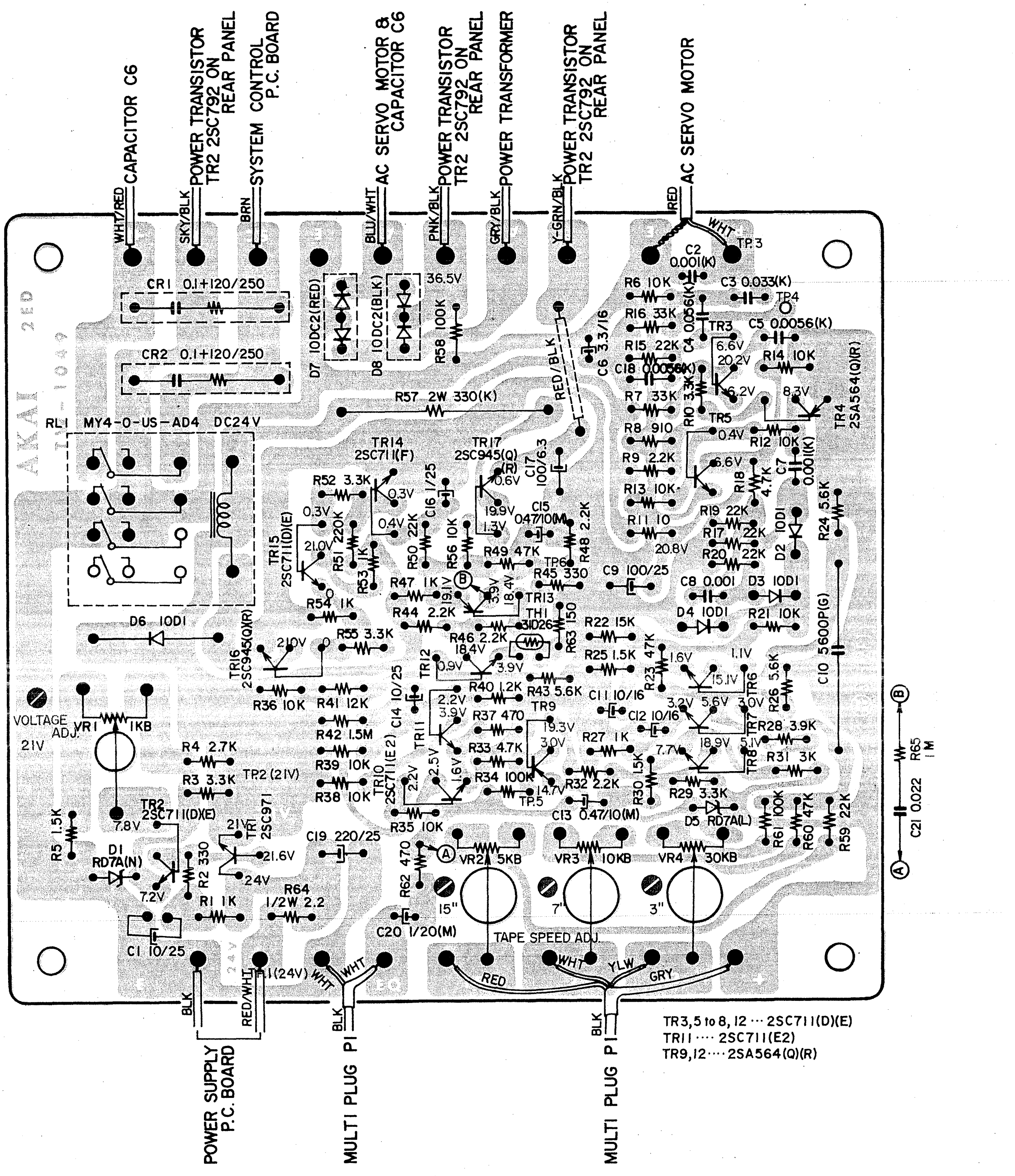

VR2 5KB
T2
T1
VR1 5KB
VR4 5KB
VR3 5KB
T4
T3

Fig. 16 HEAD PHONE P.C. BOARD TW-5312 (FACE)

Adjustment Item	Test Tape Supply Signal	Measuring Instrument Connection	Mode	Tape Speed	Adjustment	Result	Ref. Diagram	Remarks
Power Source Circuit Voltage Adjustment		V.T.V.M. or Tester between TP.1 and Ground	STOP		VR1 1 kB	24V	Fig. 2	TP. 1 (See Fig. 3)
Servo Control Circuit Voltage Adjustment		V.T.V.M. or Tester between TP.2 and Ground	STOP		VR1 1 kB	21V	Fig. 3	Must First be Adjusted to 24 V
15 ips. (38 cm/sec.) Tape Speed Adjustment	1,000 Hz 7-1/2 ips. Test Tape	Frequency Counter to Line Output	FWD	15 ips.	VR2 5 kB	2,000Hz ±1.5%	Fig. 3	
7-1/2 ips. (19 cm/sec.) Tape Speed Adjustment	1,000 Hz 7-1/2 ips. Test Tape	Frequency Counter to Line Output	FWD	7-1/2 ips.	VR3 10 kB	1,000Hz ±1.5%	Fig. 3	
3-3/4 ips. (9.5 cm/sec.) Tape Speed Adjustment	1,000 Hz 7-1/2 ips. Test Tape	Frequency Counter to Line Output	FWD	3-3/4 ips.	VR4 30 kB	500Hz ±1.5%	Fig. 3	
NORMAL Playback Level Adjustment	700 Hz 15 ips. Test Tape	High Sensitivity V.T.V.M. to Line Output	FWD	15 ips.	VR2 20 kB	4±1 dB/FWD 4±1.5 dB/RWD	Figs. 4,5	
QUADRA SYNC Playback Level Adjustment	700 Hz 15 ips Test Tape	High Sensitivity V.T.V.M. to Line Output	FWD	15 ips.	VR1 500B	4±1 dB/FWD 4±1.5 dB/RWD	Figs. 4,5	Depress QUADRA SYNC Switches
VU Meter Sensitivity Adjustment	700 Hz 15 ips. Test Tape		FWD	15 ips.	VR1 to VR4 5 kB	0 VU	Fig. 4	VR1 TRACK 2 VR2 TRACK 4 VR3 TRACK 1 VR4 TRACK 3
Recording Bias Adjustment	1,000/10,000 Hz -16 dB Signal to Line Input	Audio Frequency Oscillator to Line Input and High Sensitivity V.T.V.M. to Line Output	REC	3-3/4 ips.	TC1 to TC4 70 PF	Flat Frequency Response	Fig. 11	TC1 TRACK 1 TC2 TRACK 3 TC3 TRACK 2 TC4 TRACK 4
Recording Level Adjustment	1,000 Hz Signal	Audio Frequency Oscillator to Line Input and High Sensitivity V.T.V.M. to Line Output	REC	7-1/2 ips.	VR1 5 kB	4±1.5 dB	Figs. 4,8	VU Meter Indicates 0 VU
Bias Leak Adjustment		High Sensitivity V.T.V.M. to Line Output	REC	7-1/2 ips.	L1 22 mH(J)	Less than -20 VU	Figs. 4,5	
Direct Function Time constant Adjustment			FWD → ← REV	15 ips	VR1 50 kB	Within 3 sec.	Fig. 2	
			F.F or RWD → ← RWD or F.F	15 ips.	VR2 100 kB	Within 3 sec.	Fig. 2	

Chart 2


CAPACITOR C6
POWER TRANSISTOR TR2 2SC792 ON REAR PANEL
SYSTEM CONTROL P.C. BOARD
AC SERVO MOTOR & CAPACITOR C6
POWER TRANSISTOR TR2 2SC792 ON REAR PANEL
POWER TRANSFORMER
POWER TRANSISTOR TR2 2SC792 ON REAR PANEL
AC SERVO MOTOR
WHT/RED
SKY/BLK
BRN
BLU/WHT
PNK/BLK
GRY/BLK
Y-GRN/BLK
RED
WHT
TP.3
C2 0.001(K)
R6 10K
C3 0.033(K)
TP4
R16 33K
C4 0.056(K)
TR3
C5 0.0056(K)
R15 22K
6.6V
20.2V
R14 10K
C18 0.0056(K)
R10 3.3K
6.2V
8.3V
R7 33K
TR5
TR4 2SA564(Q)(R)
R8 910
0.4V
R12 10K
R9 2.2K
6.6V
R18 4.7K
C7 0.001(K)
R13 10K
R19 22K
R11 10
R17 22K
D1 10D1
R24 5.6K
20.8V
R20 22K
D2
CR1 0.1+120/250
CR2 0.1+120/250
D7 10DC2(RED)
D8 10DC2(BLK)
36.5V
R58 100K
C6 3.3/16
RED/BLK
R57 2W 330(K)
RL1 MY4-0-US-AD4 DC24V
AKAI
TR14 2SC711(F)
TR17 2SC945(Q)(R)
C17 100/6.3
R52 3.3K
0.3V
C16 1/25
0.6V
19.9V
1.3V
C15 0.47/10(M)
R48 2.2K
0.3V
0.4V
TR15 2SC711(D)(E)
R51 220K
21.0V
R50 22K
R56 10K
R49 47K
TP6
R53 1K
R47 1K
19.1V
B
3.9V
18.4V
R45 330
C9 100/25
C8 0.001
D3 10D1
R54 1K
R44 2.2K
TR13
TH1 31D26
R63 150
D4 10D1
R21 10K
D6 10D1
R55 3.3K
R46 2.2K
18.4V
R22 15K
C10 5600P(G)
TR16 2SC945(Q)(R)
21.0V
TR12
0.9V
3.9V
R25 1.5K
R23 47K
1.6V
1.1V
15.1V
TR6
R26 5.6K
R36 10K
R41 12K
C14 10/25
R40 1.2K
R43 5.6K
C11 10/16
VOLTAGE ADJ.
VR1 1KB
21V
R42 1.5M
2.2V
3.9V
R37 470
TR9
C12 10/16
3.2V
5.6V
3.0V
TR7
R28 3.9K
R65 1M
19.3V
R27 1K
3.0V
7.7V
18.9V
5.1V
R4 2.7K
R39 10K
TR11
R33 4.7K
R30 1.5K
TR8
R31 3K
R3 3.3K
TP2 (21V)
R38 10K
TR10 2SC711(E2)
2.2V
2.5V
1.6V
R34 100K
14.7V
TP5
R32 2.2K
R29 3.3K
TR2 2SC711(D)(E)
7.8V
21V
TR1 2SC971
C13 0.47/10(M)
D5 RD7A(L)
R61 100K
R60 47K
R59 22K
C21 0.022
R5 1.5K
C19 220/25
R35 10K
R2 330
D1 RD7A(N)
21.6V
R62 470
A
VR2 5KB
VR3 10KB
VR4 30KB
7.2V
24V
R1 1K
R64 1/2W 2.2
15"
7"
3"
C1 10/25
C20 1/20(M)
TAPE SPEED ADJ.
TP1(24V)
WHT
WHT
RED
WHT
YLW
GRY
BLK
RED/WHT
BLK
BLK
POWER SUPPLY P.C. BOARD
MULTI PLUG P1
MULTI PLUG P1

TR3,5 to 8, 12 ··· 2SC711(D)(E)
TR11 ···· 2SC711(E2)
TR9,12 ···· 2SA564(Q)(R)

Fig. 17. SERVO CONTROL P.C. BOARD TW-1049 (REVERSE)

NOTE: For Explanation of A.C. Servo Control Operation, refer to GX-400D Service Manual, Pages 31 through 34.

V. D.C. RESISTANCES OF VARIOUS COILS

The D.C. resistance values shown below are average values.

Designation	Type	D.C. Resistance
Capstan Motor	SCM3-16TW	Between RED-BLU 19Ω Between YLW-GRN 90Ω
Reel Motor	IM1-24TW	Between RED-BLU 30Ω Between YLW-GRN 157Ω
Pinch Wheel Solenoid	1660PHT2	750Ω
Brake Solenoid	1660THT2	700Ω
Shifter Solenoid	1254THT	620Ω
Pick-up Coil	Built in Capstan Motor	3.7 kΩ
Erase Head	E2-100	2.5Ω
Recording Head	R4-280	13Ω
Playback Head	P4-280	350Ω
Relay	MY4-0-US-AD4 D.C. 24V TECK-19	650Ω 1,500 Ω
Headphone Transformer	N19-5921S	Primary 230Ω Secondary 0.9Ω
OSC. Transformer	OT-204	Between 1-3 0.3Ω Between 4-6 0.7Ω Between 7-9 8.2Ω
Power Transformer	TWT-2	Refer to Fig. 18

Chart 3

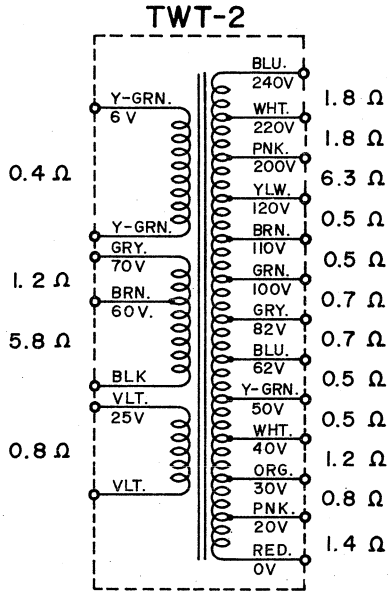
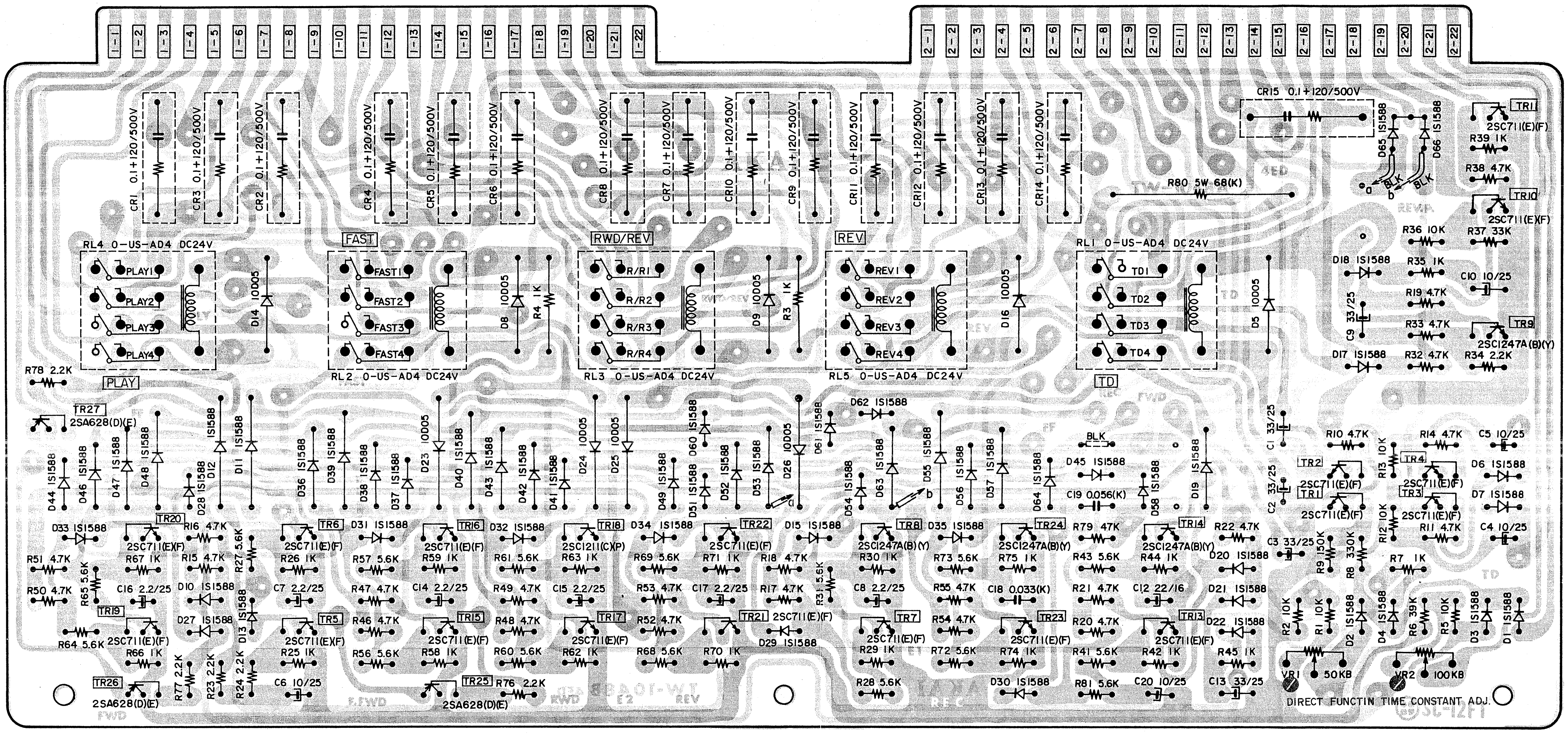

TWT-2
Y-GRN.
6 V
0.4 Ω
Y-GRN.
GRY.
70V
1. 2 Ω
BRN.
60V.
5.8 Ω
BLK
VLT.
25V
0.8 Ω
VLT.
BLU.
240V
1.8 Ω
WHT.
220V
1.8 Ω
PNK.
200V
6.3 Ω
YLW.
120V
0.5 Ω
BRN.
110V
0.5 Ω
GRN.
100V
0.7 Ω
GRY.
82V
0.7 Ω
BLU.
62V
0.5 Ω
Y-GRN.
50V
0.5 Ω
WHT.
40V
1.2 Ω
ORG.
30V
0.8 Ω
PNK.
20V
1.4 Ω
RED.
0V

Fig. 18

VI. COMPOSITE VIEWS OF COMPONENTS

1. SYS. CON. P.C. BOARD TW-1048

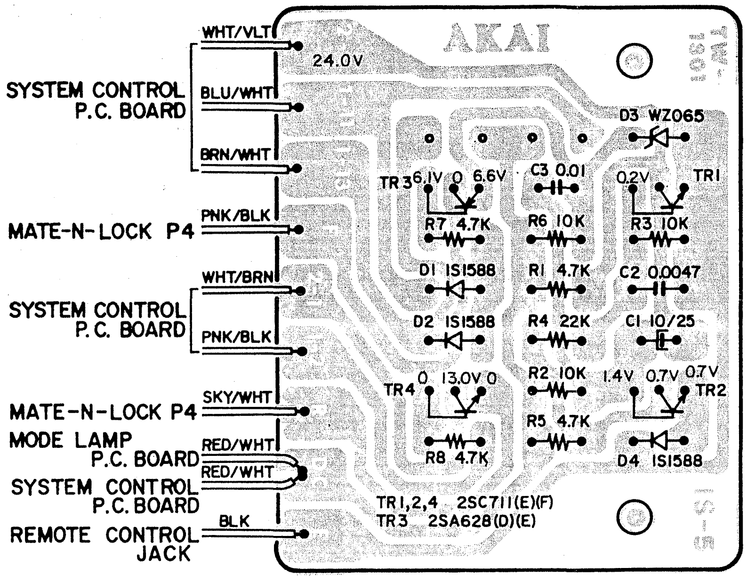


1-1
1-2
1-3
1-4
1-5
1-6
1-7
1-8
1-9
1-10
1-11
1-12
1-13
1-14
1-15
1-16
1-17
1-18
1-19
1-20
1-21
1-22
2-1
2-2
2-3
2-4
2-5
2-6
2-7
2-8
2-9
2-10
2-11
2-12
2-13
2-14
2-15
2-16
2-17
2-18
2-19
2-20
2-21
2-22
CR1 0.1+120/500V
CR3 0.1+120/500V
CR2 0.1+120/500V
CR4 0.1+120/500V
CR5 0.1+120/500V
CR6 0.1+120/500V
CR8 0.1+120/500V
CR7 0.1+120/500V
CR10 0.1+120/500V
CR9 0.1+120/500V
CR11 0.1+120/500V
CR12 0.1+120/500V
CR13 0.1+120/500V
CR14 0.1+120/500V
CR15 0.1+120/500V
R80 5W 68(K)
D65 1S1588
D66 1S1588
BLK
TR11
2SC711(E)(F)
R39 1K
R38 4.7K
TR10
2SC711(E)(F)
R36 10K
R37 33K
RL4 0-US-AD4 DC24V
PLAY1
PLAY2
PLAY3
PLAY4
PLAY
FAST
FAST1
FAST2
FAST3
FAST4
RL2 0-US-AD4 DC24V
RWD/REV
R/R1
R/R2
R/R3
R/R4
RL3 0-US-AD4 DC24V
REV
REV1
REV2
REV3
REV4
RL5 0-US-AD4 DC24V
RL1 0-US-AD4 DC24V
TD1
TD2
TD3
TD4
TD
D14 10D05
D8 10D05
R4 1K
D9 10D05
R3 1K
D16 10D05
D5 10D05
D18 1S1588
R35 1K
C10 10/25
C9 33/25
R19 4.7K
R33 4.7K
TR9
2SC1247A(B)(Y)
D17 1S1588
R32 4.7K
R34 2.2K
R78 2.2K
TR27
2SA628(D)(E)
D62 1S1588
C1 33/25
R10 4.7K
R14 4.7K
C5 10/25
D45 1S1588
TR2
TR1
2SC711(E)(F)
R13 10K
TR4
TR3
2SC711(E)(F)
D6 1S1588
D7 1S1588
C19 0.056(K)
C2 33/25
R12 10K
D44 1S1588
D46 1S1588
D47 1S1588
D48 1S1588
D28 1S1588
D12
D11 1S1588
D36 1S1588
D39 1S1588
D38 1S1588
D37 1S1588
D23 10D05
D40 1S1588
D43 1S1588
D42 1S1588
D41 1S1588
D24 10D05
D25 10D05
D49 1S1588
D51 1S1588
D60 1S1588
D52 1S1588
D53 1S1588
D26 10D05
D61 1S1588
D54 1S1588
D63 1S1588
D55 1S1588
D56 1S1588
D57 1S1588
D64 1S1588
D58 1S1588
D19 1S1588
D33 1S1588
TR20
2SC711(E)(F)
R16 4.7K
TR6
2SC711(E)(F)
D31 1S1588
TR16
2SC711(E)(F)
D32 1S1588
TR18
2SC1211(C)(P)
D34 1S1588
TR22
2SC711(E)(F)
D15 1S1588
TR8
2SC1247A(B)(Y)
D35 1S1588
TR24
2SC1247A(B)(Y)
R79 47K
TR14
2SC1247A(B)(Y)
R22 4.7K
C3 33/25
R11 4.7K
C4 10/25
R51 4.7K
R67 1K
R15 4.7K
R27 5.6K
R26 1K
R57 5.6K
R59 1K
R61 5.6K
R63 1K
R69 5.6K
R71 1K
R18 4.7K
R30 1K
R73 5.6K
R75 1K
R43 5.6K
R44 1K
D20 1S1588
R9 150K
R8 330K
R7 1K
R50 4.7K
R65 5.6K
C16 2.2/25
D10 1S1588
C7 2.2/25
R47 4.7K
C14 2.2/25
R49 4.7K
C15 2.2/25
R53 4.7K
C17 2.2/25
R17 4.7K
R31 5.6K
C8 2.2/25
R55 4.7K
C18 0.033(K)
R21 4.7K
C12 22/16
D21 1S1588
TR19
D27 1S1588
D13 1S1588
TR5
2SC711(E)(F)
R46 4.7K
TR15
2SC711(E)(F)
R48 4.7K
TR17
2SC711(E)(F)
R52 4.7K
TR21
2SC711(E)(F)
D29 1S1588
TR7
2SC711(E)(F)
R54 4.7K
TR23
2SC711(E)(F)
R20 4.7K
TR13
2SC711(E)(F)
D22 1S1588
R2 10K
R1 10K
D2 1S1588
D4 1S1588
R6 39K
R5 10K
D3 1S1588
D1 1S1588
R64 5.6K
2SC711(E)(F)
R66 1K
R25 1K
R56 5.6K
R58 1K
R60 5.6K
R62 1K
R68 5.6K
R70 1K
R29 1K
R72 5.6K
R74 1K
R41 5.6K
R42 1K
R45 1K
R77 2.2K
R23 2.2K
R24 2.2K
C6 10/25
TR26
2SA628(D)(E)
TR25
2SA628(D)(E)
R76 2.2K
R28 5.6K
D30 1S1588
R81 5.6K
C20 10/25
C13 33/25
VR1
50KB
VR2
100KB
DIRECT FUNCTIN TIME CONSTANT ADJ.

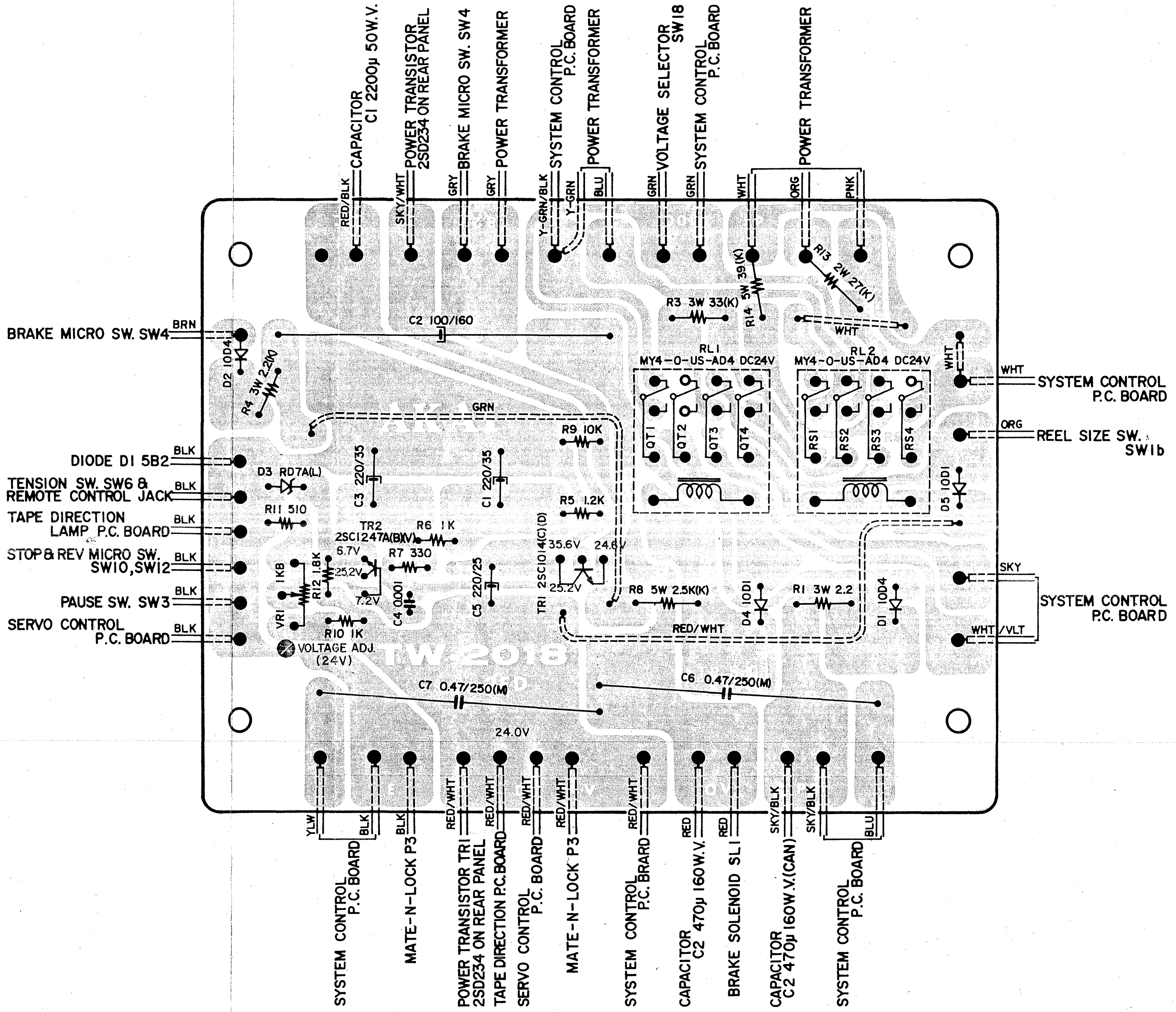
TRANSISTOR	TR 1	TR 2	TR 3	TR 4	TR 5	TR 6	TR 7	TR 8	TR 9	TR 10	TR 11	TR 13	TR 14
E	0		0 (STOP) 0.3V (F.F, RWD) 0.2V (OTHER)	0 (STOP) 0.3V (F.F, RWD) 0.2V (OTHER)						15.1V (REV) 0 (OTHER)			
C	24.0V	24.0V	24.0V	24.0V	0 (STOP, F.F, RWD) 10.1V (FWD, REV) 12.8V (REC)	24.0V (STOP, F.F, RWD) 0.2V (OTHER)	10.1V (REV) 0 (OTHER)	0.1V (REV) 24.0V (STOP) 23.5V (OTHER)	21.7V (REV) 0 (OTHER)	24.0V	0.1V (REV) 24.0V (OTHER)	14.4V (REC) 0 (OTHER)	0.2V (REC) 24.0V (OTHER)
B	0	0	0	0	0.7V (STOP, F.F, RWD) 0.3V (OTHER)	0.8V (FWD, REV, REC) 0 (OTHER)	0.1V (REV) 0.7V (OTHER)	0.7V (REV) 0 (OTHER)	0 (REV) 0.6V (STOP) 0.7V (OTHER)	15.7V (REV) 0 (OTHER)	0.8V (REV) 0 (OTHER)	0.1V (REC) 0.7V (OTHER)	0.8V (REC) 0 (OTHER)

TRANSISTOR	TR 15	TR 16	TR 17	TR 18	TR 19	TR 20	TR 21	TR 22	TR 23	TR 24	TR 25	TR 26	TR 27
E											0.2V (F.F, RWD) 24.0V (OTHER)	2.1V (FWD, REV, REC) 24.0V (OTHER)	0.6V (FWD, REC) 8.5V (REV) 13.6V (OTHER)
C	13.4V (F.F) 0 (OTHER)	0.1V (F.F, RWD) 23.7V (OTHER)	24.0V (STOP) 13.4V (RWD) 0 (OTHER)	0.1V (RWD) 23.7V (OTHER)	13.3V (FWD, REC) 0 (OTHER)	0 (FWD, REC) 23.0V (OTHER)	9.1V (REV) 0 (OTHER)	0.2V (REV) 23.7V (OTHER)	13.3V (REC) 0 (OTHER)	0.1V (REC) 24.0V (OTHER)			0.4V (FWD, REC) 8.5V (REV) 0 (OTHER)
B	0.1V (F.F) 0.7V (OTHER)	0.8V (F.F, RWD) 0 (OTHER)	0.1V (RWD) 0.7V (OTHER)	0.7V (RWD) 0 (OTHER)	0.1V (FWD, REC) 0.7V (OTHER)	0.7V (FWD, REC) 0 (OTHER)	0.1V (REV) 0.7V (OTHER)	0.8V (REV) 0 (OTHER)	0.1V (REC) 0.7V (OTHER)	0.7V (REC) 0 (OTHER)	1.5V (F.F, RWD) 24.0V (OTHER)	1.4V (FWD, REV, REC) 23.4V (OTHER)	0.2V (FWD, REC) 7.7V (REV) 24.0V (OTHER)

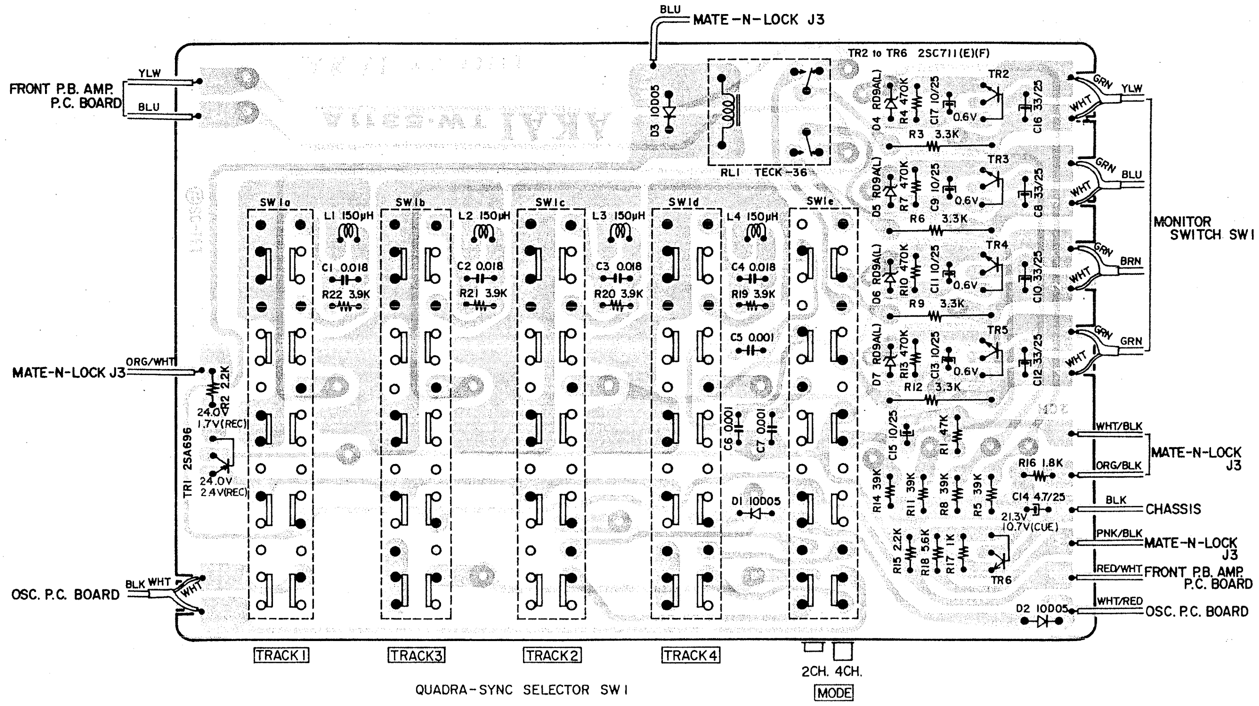
2. SYS. CON. (B) P.C. BOARD TW-1301


SYSTEM CONTROL P.C. BOARD
WHT/VLT
BLU/WHT
BRN/WHT
MATE-N-LOCK P4
PNK/BLK
SYSTEM CONTROL P.C. BOARD
WHT/BRN
PNK/BLK
MATE-N-LOCK P4
SKY/WHT
MODE LAMP P.C. BOARD
RED/WHT
SYSTEM CONTROL P.C. BOARD
RED/WHT
REMOTE CONTROL JACK
BLK
AKAI
24.0V
D3 WZ065
TR3 6.1V 0 6.6V
C3 0.01
0.2V
TR1
R7 4.7K
R6 10K
R3 10K
D1 1S1588
R1 4.7K
C2 0.0047
D2 1S1588
R4 22K
C1 10/25
TR4 0 13.0V 0
R2 10K
1.4V 0.7V 0.7V
TR2
R5 4.7K
R8 4.7K
D4 1S1588
TR1,2,4 2SC711(E)(F)
TR3 2SA628(D)(E)

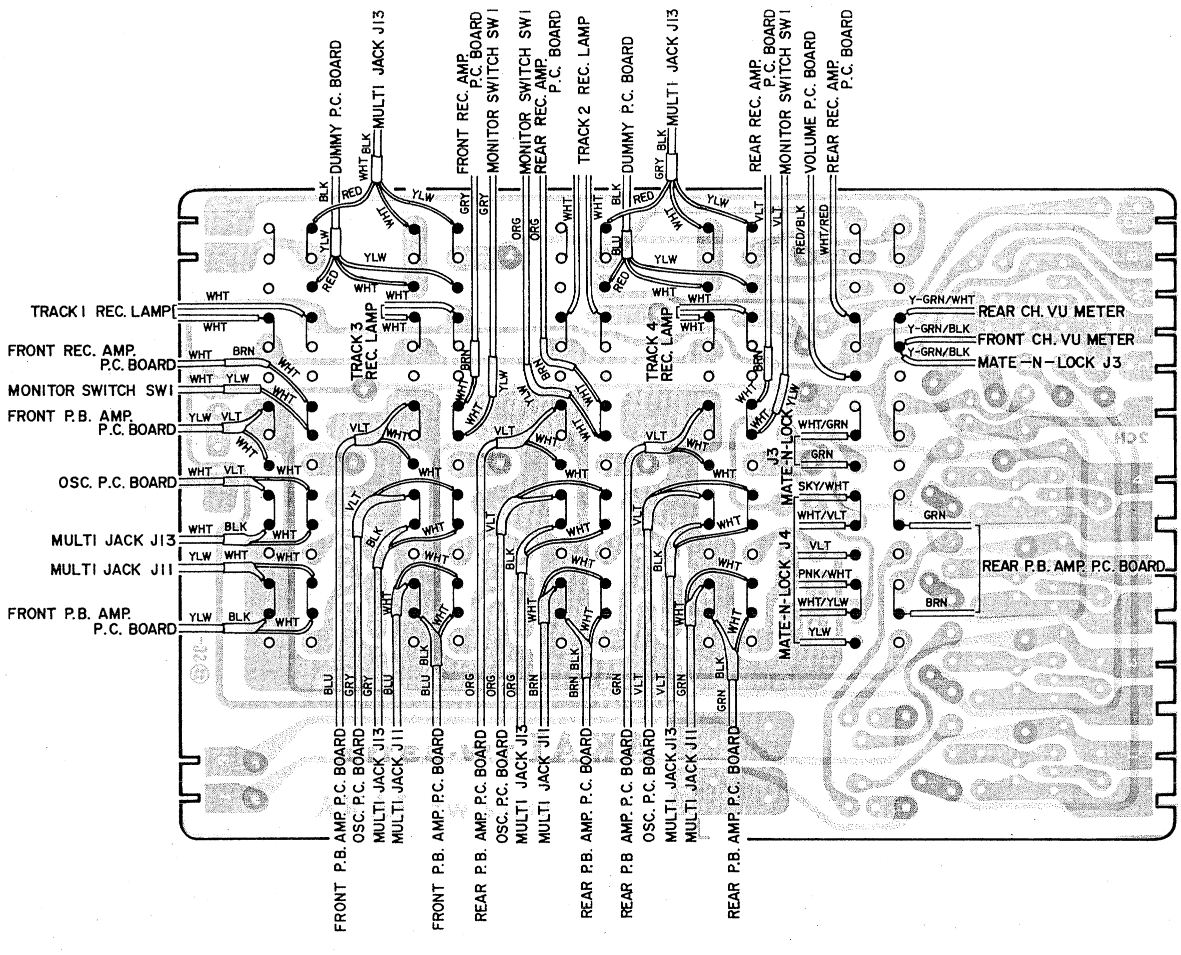
3. POWER SUPPLY P.C. BOARD TW-2018


CAPACITOR C1 2200μ 50W.V.
RED/BLK
POWER TRANSISTOR 2SD234 ON REAR PANEL
SKY/WHT
BRAKE MICRO SW. SW4
GRY
POWER TRANSFORMER
GRY
SYSTEM CONTROL P.C. BOARD
Y-GRN/BLK
Y-GRN
POWER TRANSFORMER
BLU
VOLTAGE SELECTOR SW18
GRN
SYSTEM CONTROL P.C. BOARD
GRN
POWER TRANSFORMER
WHT
ORG
PNK
BRAKE MICRO SW. SW4
BRN
D2 10D4
R4 3W 2.2(K)
C2 100/160
R3 3W 33(K)
R14 5W 39(K)
R13 2W 27(K)
WHT
RL1 MY4-0-US-AD4 DC24V
RL2 MY4-0-US-AD4 DC24V
QT1 QT2 QT3 QT4
RS1 RS2 RS3 RS4
WHT
SYSTEM CONTROL P.C. BOARD
ORG
REEL SIZE SW. SW1b
GRN
DIODE D1 5B2
BLK
D3 RD7A(L)
C3 220/35
C1 220/35
R9 10K
D5 10D1
TENSION SW. SW6 & REMOTE CONTROL JACK
BLK
R11 510
R5 1.2K
TAPE DIRECTION LAMP P.C. BOARD
BLK
TR2 2SC1247A(B)(V)
R6 1K
TR1 2SC1014(C)(D)
35.6V 24.6V
6.7V
STOP & REV MICRO SW. SW10, SW12
BLK
R12 1.8K
25.2V
R7 330
25.2V
1K8
PAUSE SW. SW3
BLK
VR1
7.2V
C4 0.001
C5 220/25
R8 5W 2.5K(K)
D4 10D1
R1 3W 2.2
D1 10D4
SKY
SYSTEM CONTROL P.C. BOARD
WHT/VLT
SERVO CONTROL P.C. BOARD
BLK
R10 1K
VOLTAGE ADJ. (24V)
RED/WHT
TW-2018
C7 0.47/250(M)
C6 0.47/250(M)
24.0V
YLW
BLK
BLK
RED/WHT
RED/WHT
RED/WHT
RED/WHT
RED/WHT
RED
RED
SKY/BLK
SKY/BLK
BLU
SYSTEM CONTROL P.C. BOARD
MATE-N-LOCK P3
POWER TRANSISTOR TR1 2SD234 ON REAR PANEL
TAPE DIRECTION P.C. BOARD
SERVO CONTROL P.C. BOARD
MATE-N-LOCK P3
SYSTEM CONTROL P.C. BRARD
CAPACITOR C2 470μ 160W.V.
BRAKE SOLENOID SL1
CAPACITOR C2 470μ 160W.V.(CAN)
SYSTEM CONTROL P.C. BOARD

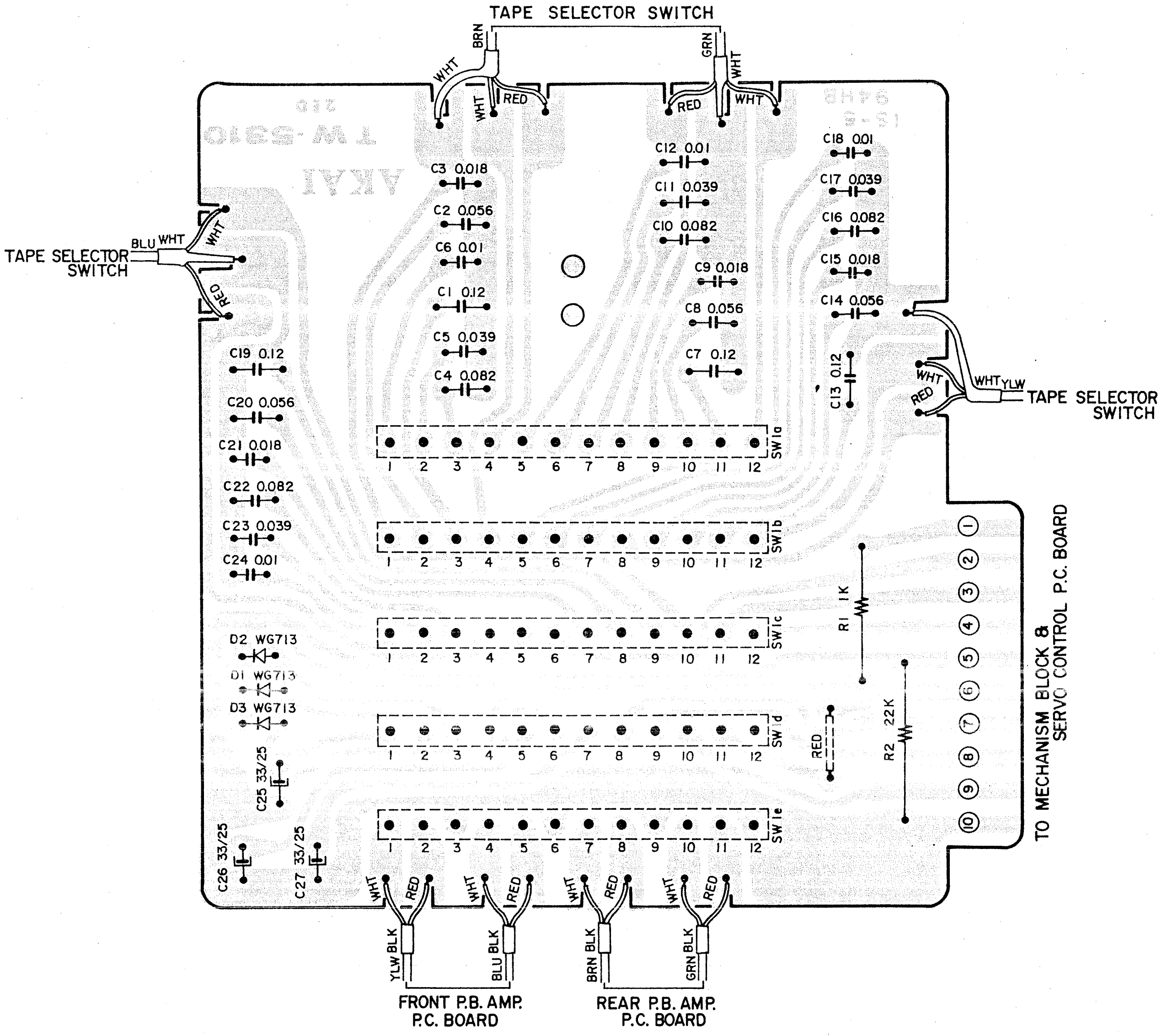
4. SELECTOR P.C. BOARD TW-5311 (REV.)


MATE-N-LOCK J3
BLU
TR2 to TR6 2SC711(E)(F)
FRONT P.B. AMP. P.C. BOARD
YLW
BLU
D3 10D05
RL1 TECK-36
D4 RD9A(L)
R4 470K
C17 10/25
R3 3.3K
TR2
C16 33/25
0.6V
GRN
YLW
WHT
D5 RD9A(L)
R7 470K
C9 10/25
R6 3.3K
TR3
C8 33/25
BLU
MONITOR SWITCH SW1
D6 RD9A(L)
R10 470K
C11 10/25
R9 3.3K
TR4
C10 33/25
BRN
D7 RD9A(L)
R13 470K
C13 10/25
R12 3.3K
TR5
C12 33/25
SW1a
SW1b
SW1c
SW1d
SW1e
L1 150μH
L2 150μH
L3 150μH
L4 150μH
C1 0.018
C2 0.018
C3 0.018
C4 0.018
R22 3.9K
R21 3.9K
R20 3.9K
R19 3.9K
C5 0.001
C6 0.001
C7 0.001
D1 10D05
MATE-N-LOCK J3
ORG/WHT
R2 2.2K
24.0V
1.7V(REC)
TR1 2SA696
24.0V
2.4V(REC)
C15 10/25
R1 47K
R16 1.8K
WHT/BLK
ORG/BLK
MATE-N-LOCK J3
R14 39K
R11 39K
R8 39K
R5 39K
C14 4.7/25
21.3V
10.7V(CUE)
BLK
CHASSIS
R15 2.2K
R18 5.6K
R17 1K
TR6
PNK/BLK
MATE-N-LOCK J3
RED/WHT
FRONT P.B. AMP. P.C. BOARD
WHT/RED
D2 10D05
OSC. P.C. BOARD
OSC. P.C. BOARD
BLK
WHT
TRACK1
TRACK3
TRACK2
TRACK4
2CH. 4CH.
MODE
QUADRA-SYNC SELECTOR SW1

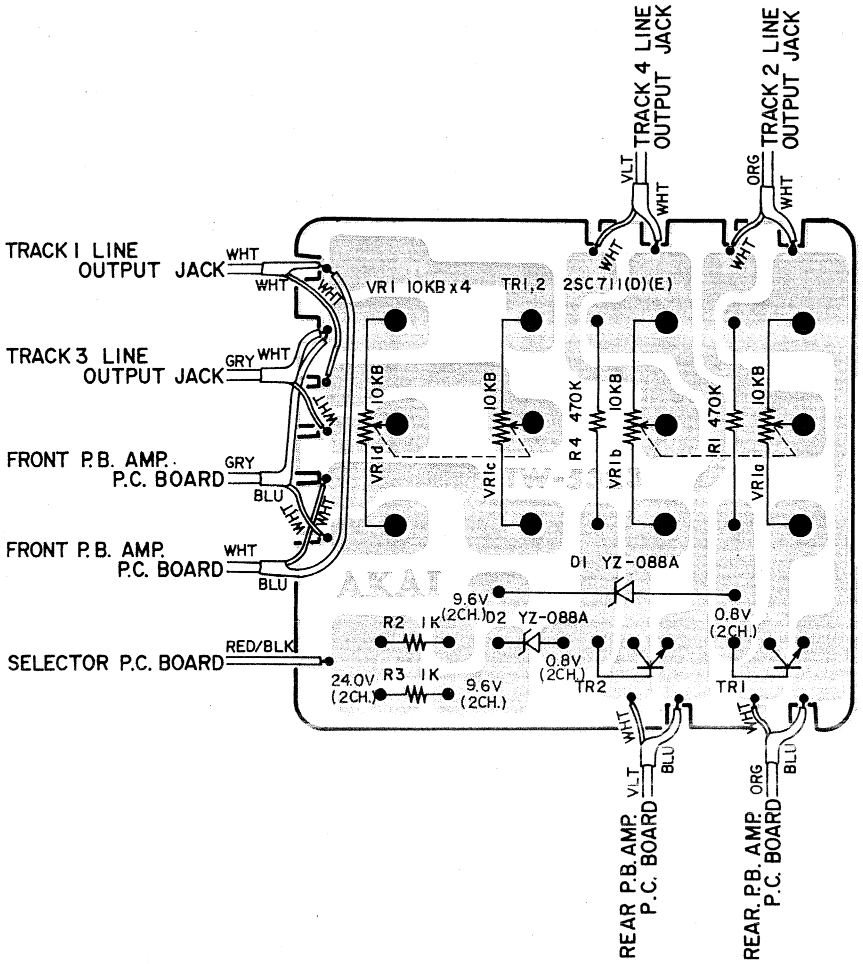
5. SELECTOR P.C. BOARD TW-5311 (FACE)


DUMMY P.C. BOARD
MULTI JACK J13
FRONT REC. AMP. P.C. BOARD
MONITOR SWITCH SW1
MONITOR SWITCH SW1
REAR REC. AMP. P.C. BOARD
TRACK2 REC. LAMP
DUMMY P.C. BOARD
MULTI JACK J13
REAR REC. AMP. P.C. BOARD
MONITOR SWITCH SW1
VOLUME P.C. BOARD
REAR REC. AMP. P.C. BOARD
BLK
RED
WHT
YLW
GRY
ORG
VLT
RED/BLK
WHT/RED
TRACK1 REC. LAMP
FRONT REC. AMP. P.C. BOARD
MONITOR SWITCH SW1
FRONT P.B. AMP. P.C. BOARD
OSC. P.C. BOARD
MULTI JACK J13
MULTI JACK J11
FRONT P.B. AMP. P.C. BOARD
BRN
TRACK3 REC. LAMP
TRACK4 REC. LAMP
Y-GRN/WHT
REAR CH. VU METER
Y-GRN/BLK
FRONT CH. VU METER
Y-GRN/BLK
MATE-N-LOCK J3
MATE-N-LOCK J3
WHT/GRN
GRN
SKY/WHT
WHT/VLT
VLT
PNK/WHT
WHT/YLW
YLW
MATE-N-LOCK J4
REAR P.B. AMP. P.C. BOARD
GRN
BRN
BLU
FRONT P.B. AMP. P.C. BOARD
OSC. P.C. BOARD
MULTI JACK J13
MULTI JACK J11
FRONT P.B. AMP. P.C. BOARD
REAR P.B. AMP. P.C. BOARD
OSC. P.C. BOARD
MULTI JACK J13
MULTI JACK J11
REAR P.B. AMP. P.C. BOARD
REAR P.B. AMP. P.C. BOARD
OSC. P.C. BOARD
MULTI JACK J13
MULTI JACK J11
REAR P.B. AMP. P.C. BOARD

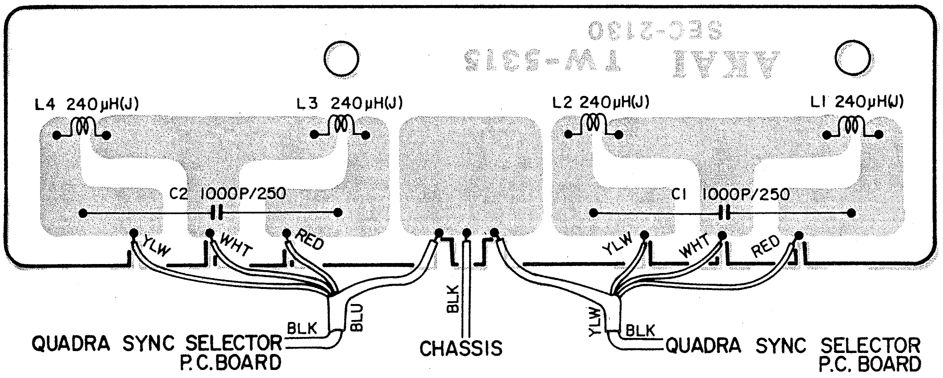
6. TAPE SPEED & EQ. SW. P.C. BOARD TW-5310


TAPE SELECTOR SWITCH
BRN
WHT
WHT
RED
GRN
WHT
RED
WHT
TAPE SELECTOR SWITCH
BLU
WHT
WHT
RED
C3 0.018
C2 0.056
C6 0.01
C1 0.12
C5 0.039
C4 0.082
C12 0.01
C11 0.039
C10 0.082
C9 0.018
C8 0.056
C7 0.12
C18 0.01
C17 0.039
C16 0.082
C15 0.018
C14 0.056
C13 0.12
C19 0.12
C20 0.056
C21 0.018
C22 0.082
C23 0.039
C24 0.01
D2 WG713
D1 WG713
D3 WG713
C25 33/25
C26 33/25
C27 33/25
WHT
RED
WHT
YLW
TAPE SELECTOR SWITCH
SW1a
SW1b
SW1c
SW1d
SW1e
1 2 3 4 5 6 7 8 9 10 11 12
R1 1K
R2 22K
RED
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩
TO MECHANISM BLOCK & SERVO CONTROL P.C. BOARD
WHT
RED
YLW
BLK
BLU
BLK
BRN
BLK
GRN
BLK
FRONT P.B. AMP. P.C. BOARD
REAR P.B. AMP. P.C. BOARD

7. VOLUME CONTROL P.C. BOARD TW-5323


TRACK 4 LINE OUTPUT JACK
VLT
WHT
TRACK 2 LINE OUTPUT JACK
ORG
WHT
TRACK 1 LINE OUTPUT JACK
WHT
WHT
TRACK 3 LINE OUTPUT JACK
GRY
WHT
FRONT P.B. AMP. P.C. BOARD
GRY
BLU
FRONT P.B. AMP. P.C. BOARD
WHT
BLU
SELECTOR P.C. BOARD
RED/BLK
VR1 10KB x4
TR1,2 2SC711(D)(E)
10KB
VR1d
VR1c
R4 470K
VR1b
R1 470K
VR1a
AKAI
D1 YZ-088A
9.6V (2CH.)
D2 YZ-088A
R2 1K
0.8V (2CH.)
0.8V (2CH.)
24.0V (2CH.)
R3 1K
9.6V (2CH.)
TR2
TR1
WHT
BLU
VLT
REAR P.B. AMP. P.C. BOARD
ORG
REAR. P.B. AMP. P.C. BOARD

8. DUMMY P.C. BOARD TW-5315


AKAI TW-5315
SEC-2130
L4 240μH(J)
L3 240μH(J)
L2 240μH(J)
L1 240μH(J)
C2 1000P/250
C1 1000P/250
YLW
WHT
RED
BLK
BLU
QUADRA SYNC SELECTOR P.C.BOARD
CHASSIS
QUADRA SYNC SELECTOR P.C. BOARD

SECTION 2

PARTS LIST

The composite parts of Model GX-400D-SS, except for those which have been changed as per the list below, are identical to those of Model GX-400D. Therefore, when ordering parts for this tape deck, please utilize Model GX-400D Parts List.

TABLE OF CONTENTS

TW HEAD BLOCK 26
POWER SUPPLY BLOCK 26
SYS. CON. P.C. BOARD (TW-1048) BLOCK 26
SYS. CON. (B) P.C. BOARD (TW-1301) BLOCK 26
P.B. AMP. P.C. BOARD (TW-5314) BLOCK 27
REC. AMP. P.C. BOARD (MS-5023) BLOCK 28
OSC. P.C. BOARD (TW-5313) BLOCK 29
EQ. SW. P.C. BOARD (TW-5310) BLOCK 30
SELECTOR P.C. BOARD (TW-5311) BLOCK 31
VOL. P.C. BOARD (TW-5323) BLOCK 32
DUMMY P.C. BOARD (TW-5315) BLOCK 32
HEADPHONE P.C. BOARD (TW-5312) BLOCK 33
AMPLIFIER ASSEMBLY BLOCK 34
FINAL ASSEMBLY BLOCK 34
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HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read list.

The reference number corresponds with illustration or photo number of that particular parts list.

This number corresponds with the Figure Number.

This number corresponds with the individual parts index number in that figure.

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

12-115x

Schematic Diagram Number of individual manufactured part.
(not required for parts order)

Quantity of particular part required.

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
		FLYWHEEL BLOCK #13		
12-115x	800425	Flywheel Block Assy. Comp.	RDG#13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-275	1
12-118	251324	Main Metal Case	RD-236	1
12-119	253080	Main Metal	RD-237	1

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of components of the Schematic Diagram or Service Manual.
5. The indications of Resistors and Capacitors in the photos of P.C. Board are being eliminated.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.

   It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

ELECTRICAL PARTS TABLE

<table>
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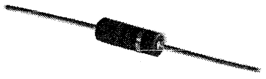
<td>Because the indication of resistors and capacitors in the P. C. Board photos are being eliminated, please confirm parts name and shape by comparing them with the parts shown in this table.</td>
<td>1

Solid Resistor</td>
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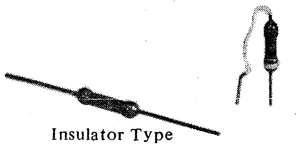
Stopper Type
Insulator Type
Carbon Resistor</td>
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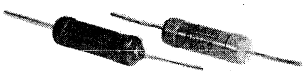
Metal Oxide Film Resistor</td>
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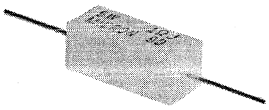
Cement Resistor</td>
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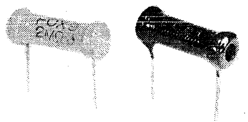
Wire-Wound Resistor</td>
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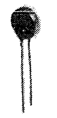
Thermister</td>
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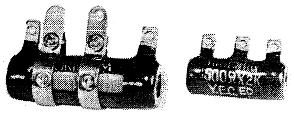
Enamel Resistor</td>
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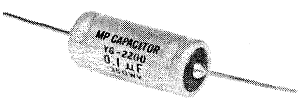
MP Capacitor (Tubular Type)</td>
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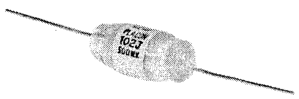
Plastic Capacitor</td>
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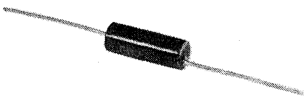
Mylar Capacitor</td>
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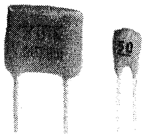
VFM (Hi-Q) Capacitor</td>
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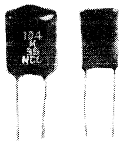
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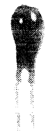
Tantalum Capacitor</td>
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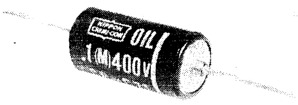
Oil Capacitor (Tubular Type)</td>
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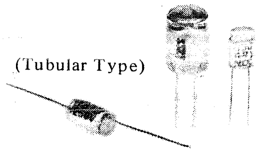
Vertical Type
(Tubular Type)
Styrol Capacitor</td>
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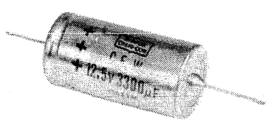
Electrolytic Capacitor (Tubular Type)</td>
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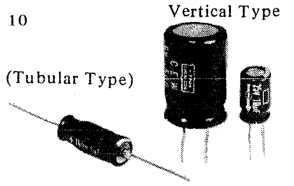
Vertical Type
(Tubular Type)
Electrolytic Capacitor</td>
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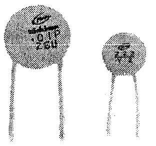
Ceramic Capacitor</td>
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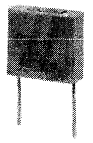
Metalized Mylar (Paper) Capacitor</td>
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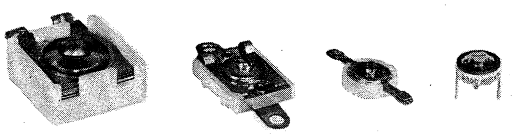
Trimmer Condenser</td>
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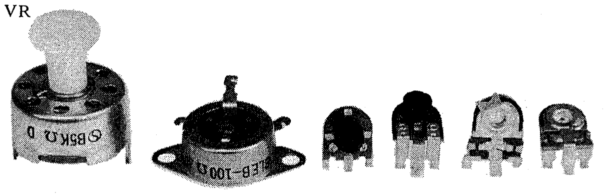
Semi-Fixed Volume</td>
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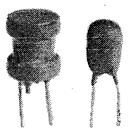
Ferri Inductor</td>
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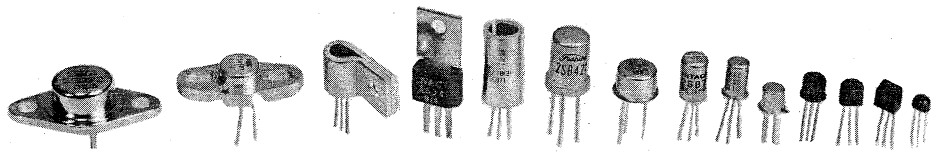
Transistor</td>
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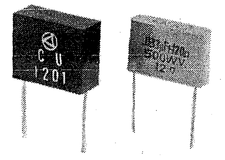
Spark Quencher</td>
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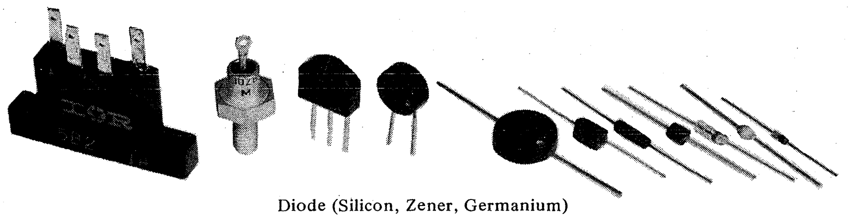
Diode (Silicon, Zener, Germanium)</td>
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TW HEAD BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
1-1x	BH565661	TW-3 Head Block Comp.	TW-3	1
1-17x	HP513281	PB. HEAD P4-280		1
1-18x	HR565672	REC. HEAD BLOCK R4-285		1
1-19x	HE563220	ERASE HEAD BLOCK E4-260		2
1-21x	HA549944	REH Angle	TW-0301	1
1-34x	EA441685	Terminal P.C. Board, 18P	KF-1003	1

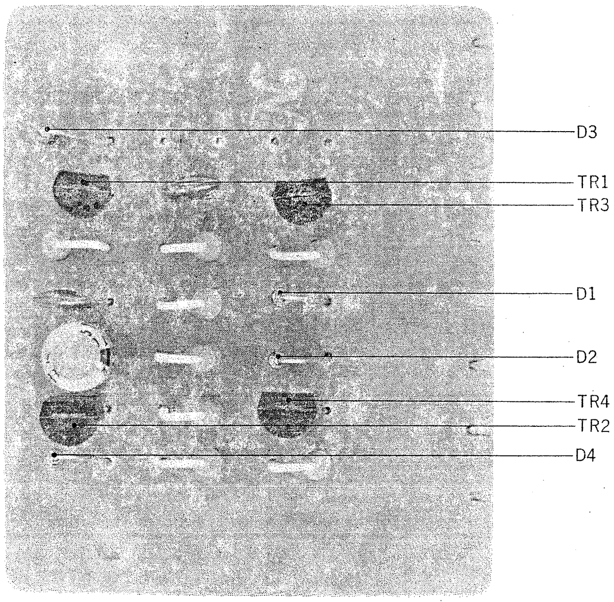
POWER SUPPLY BLOCK

8-1x	BP565683	Power Supply Block Comp.	TW-3	1
8-2x	BP565694	Power Supply Block Comp. (3 core)	TW-3	1

SYS. CON. P.C. BOARD (TW-1048) BLOCK

10-1x	BA565705	Sys. Con. P.C. Board Comp. (TW-1048)		1
10-TR11	ET453486	Transistor 2SC711(E)(F)		1
10-D64,65,66	ED557447	Silicon Diode IS1588		3

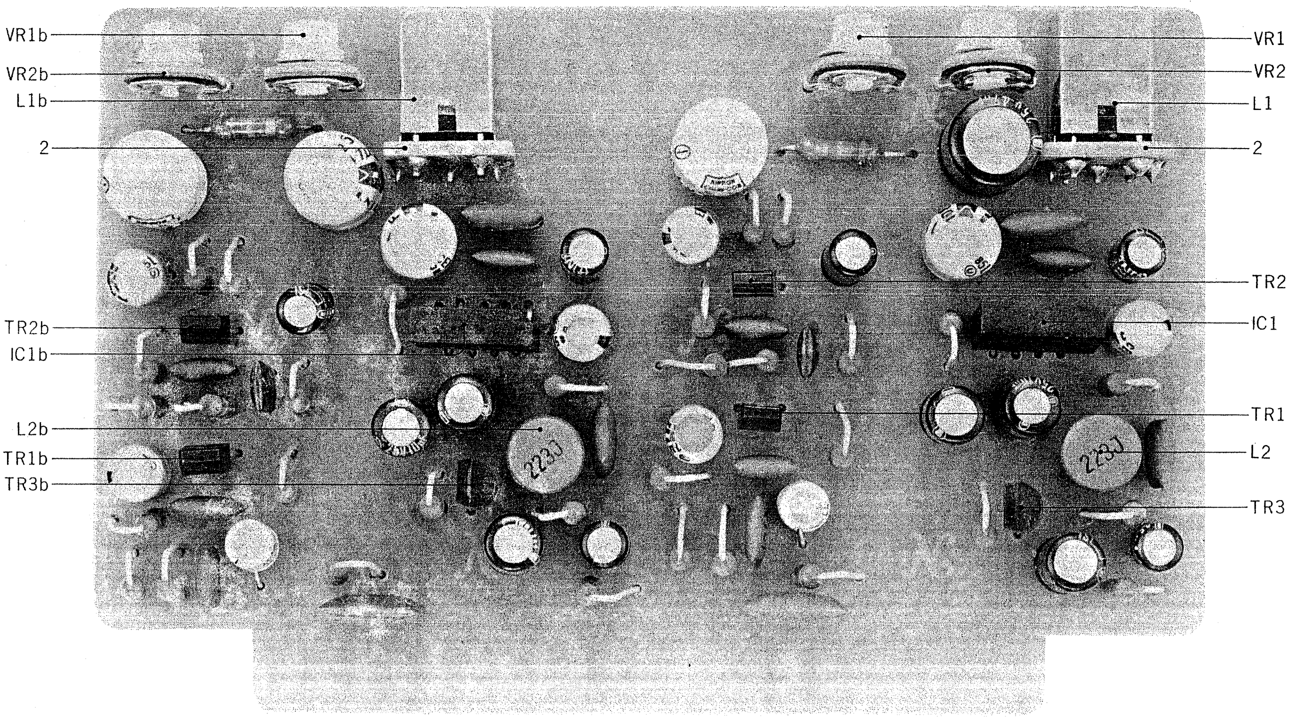
PHOTO OF SYS. CON. (B) P.C. BOARD (TW-1301) BLOCK



SYS. CON. (B) P.C. BOARD (TW-1301) BLOCK

Symbol No.	Parts No.	Description	Q'ty
11-1x	BA565716	Sys. Con. (B) P.C. Board Comp. (TW-1301)	1
11-TR1,2	ET453486	Transistor 2SC711(E)(F)	2
11-TR3	ET538110	Transistor 2SA628(D)(E)	1
11-TR4	ET453486	Transistor 2SC711(E)(F)	1
11-D3	ED555895	Zener Diode WZ-065	1
11-D4	ED557447	Silicon Diode IS1588	1
		Capacitor, Vertical Type	
11-C1	EC220994	Elect. 10μF 25WV	1
11-C2	EC362158	Mylar 0.0047μF(K) 50WV	1
11-C3	EC250885	Mylar 0.01μF(K) 50WV	1
		Resistor, Stopper Type	
11-R1	ER212883	Carbon RD1/4 4.7k(J)	1
11-R2, 3	ER336442	Carbon RD1/4 10k(J)	2
11-R4	ER212264	Carbon RD1/4 22k(J)	1
11-R5	ER212883	Carbon RD1/4 4.7k(J)	1
11-R6	ER336442	Carbon RD1/4 10k(J)	1
11-R7, 8	ER212883	Carbon RD1/4 4.7k(J)	2

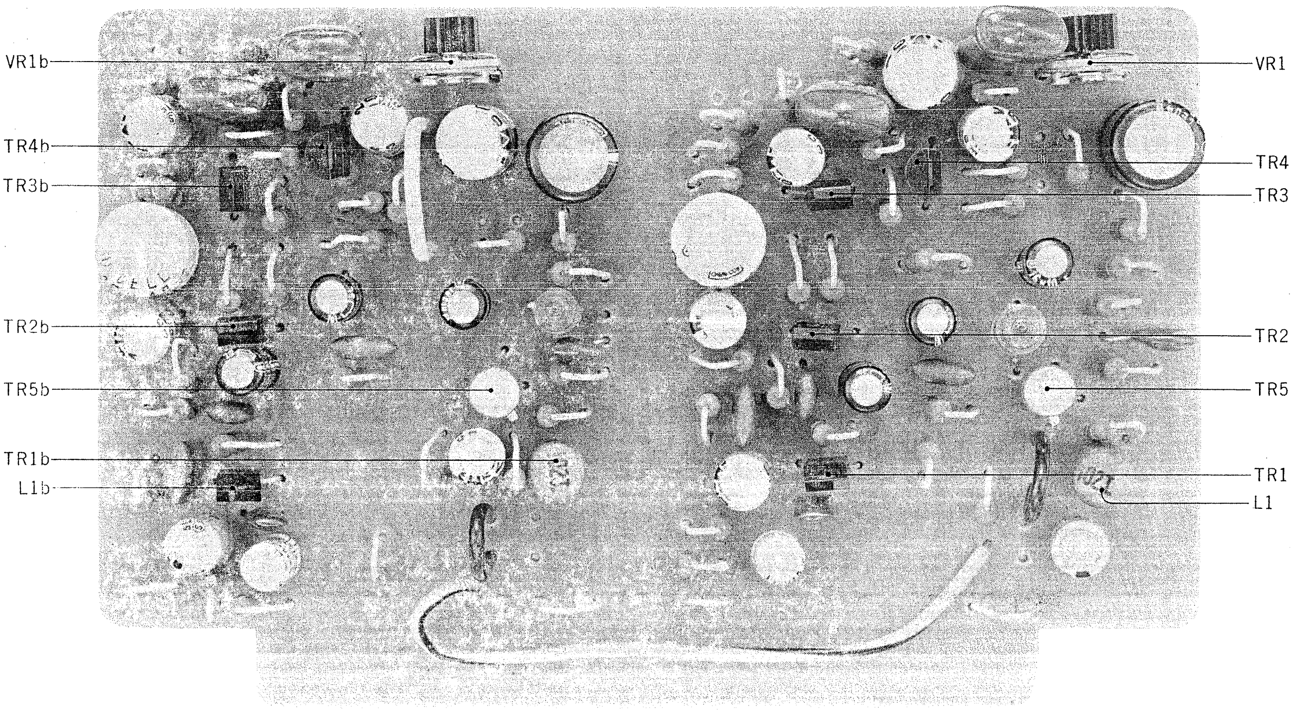
PHOTO OF P.B. AMP. P.C. BOARD (TW-5314) BLOCK



PB. AMP. P.C. BOARD (TW-5314) BLOCK

Symbol No.	Parts No.	Description	Q'ty
12-1x	BA565740	PB. Amp. P.C. Board Comp. (TW-5314)	1
12-TR1, 2	ET234854	Transistor 2SC458LG(C)	4
12-TR3	ET398711	Transistor 2SC945(Q)(R)	2
12-IC1	EI412413	I.C. Line Amp. LD-3141	2
12-L1	EO346230	Inductor RX22MH	2
12-L2	EO244012	Ferri Inductor FL9H 22MH(J)	2
12-VR1	EV497711	Semi-fixed/Vol. V10K8-1-5 500ΩB(4US)	2
12-VR2	EV497698	Semi-fixed/Vol. V10K8-1-5 20 kB(4US)	2
12-2	EA496258	Inductor P.C. Board	2
		Capacitor, Vertical Type	
12-C1	EC290520	VFM 100PF(J) 50WV	2
12-C2	EC432810	Elect. 10μF 16WV NL	2
12-C3	EC290520	VFM 100PF(J) 50WV	2
12-C4	EC329771	Elect. 47μF 6.3WV	2
12-C5	EC250841	Mylar 0.01μF(J) 50WV	2
12-C6	EC336216	VFM 330PF(J) 50WV	2
12-C7	EC290520	VFM 100PF(J) 50WV	2
12-C8	EC450055	Elect. 1μF 25WV	2
12-C9	EC329771	Elect. 47μF 6.3WV	2
12-C10	EC476965	Elect. 47μF 25WV NL	2
12-C11	EC336126	Elect. 47μF 25WV	2
12-C12	EC329850	VFM 220PF(J) 50WV	2
12-C13	EC290520	VFM 100PF(J) 50WV	2
12-C14	EC320051	Elect. 10μF 16WV	2
12-C15	EC329771	Elect. 47μF 6.3WV	2
12-C16	EC336104	Elect. 100 μF 6.3WV	2
12-C17	EC220994	Elect. 10μF 25WV	2
12-C18	EC450055	Elect. 1μF 25WV	2
12-C19,20	EC220994	Elect. 10μF 25WV	4
12-C21	EC310792	VFM 120PF(J) 50WV	2
		Resistor, Stopper Type	
12-R1	ER346601	Carbon RD1/4 47k(J)	2
12-R2	ER336442	Carbon RD1/4 10k(J)	2
12-R3	ER212681	Carbon RD1/4 330(J)	3
12-R4	ER362485	Carbon RD1/4 330k(J)	2
12-R5	ER426857	Carbon RD1/4 270k(J)	2
12-R6	ER212872	Carbon RD1/4 4.3k(J)	2
12-R7	ER212883	Carbon RD1/4 4.7k(J)	2
12-R8	ER357456	Carbon RD1/4 2.2k(J)	2
12-R9	ER212477	Carbon RD1/4 3.3k(J)	2
12-R10	ER357570	Carbon RD1/4 150k(J)	2
12-R11	ER212883	Carbon RD1/4 4.7k(J)	2
12-R12	ER345712	Carbon RD1/4 22k(J)	2
12-R13	ER336442	Carbon RD1/4 10k(J)	2
12-R14	ER306360	Carbon RD1/4 6.8k(J)	2
12-R15	ER212264	Carbon RD1/4 22k (J)	2
12-R16	ER429996	Carbon RD1/4 470k(J)	2
12-R17	ER212264	Carbon RD1/4 22k(J)	2

PHOTO OF REC. AMP. P.C. BOARD (MS-5023) BLOCK

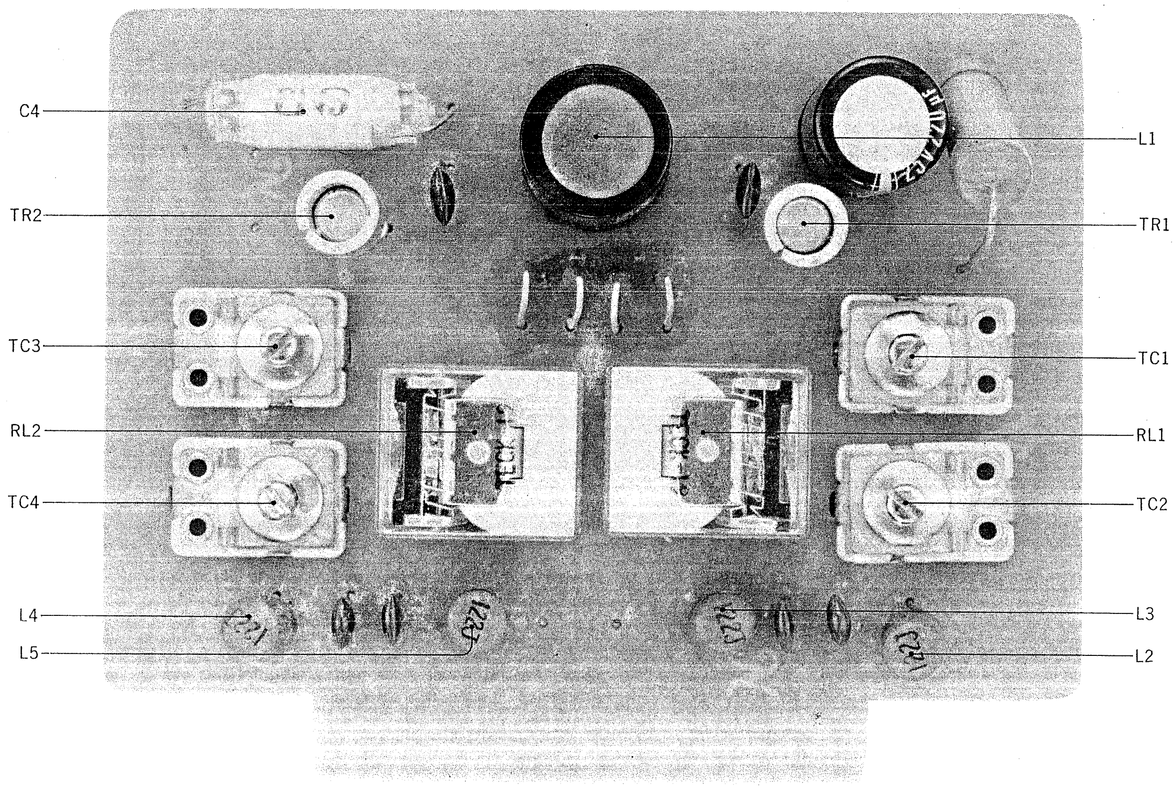


REC. AMP. P.C. BOARD (MS-5023) BLOCK

Symbol No.	Parts No.	Description	Q'ty
13-1x	BA565806	Rec. Amp. P.C. Board Comp. (MS-5023)	1
13-TR1, 2,3	ET234854	Transistor 2SC458LG(C)	6
13-TR4	ET453486	Transistor 2SC711(E)(F)	2
13-TR5	ET446736	Transistor 2SC968(2)(3)	2
13-L1	EO243977	Ferri Inductor FL7H 1MH(J)	2
13-VR1	EV398812	Semi-fixed/Vol. V10K5 5 kB w/knob	2
		Capacitor, Vertical Type	
13-C1	EC432810	Elect. 10μF 16WV NL	2
13-C2	EC383501	Mylar 0.001μF(M) 50WV	2
13-C3	EC329771	Elect. 47μF 6.3WV	2
13-C4	EC399690	VFM 33PF(J) 50WV	2
13-C5	EC290531	VFM 100PF(K) 50WV	2
13-C6	EC320051	Elect. 10μF 16WV	2
13-C7	EC329771	Elect. 47μF 6.3WV	2
13-C8	EC476965	Elect. 47μF 25WV NL	2
13-C9	EC336126	Elect. 47μF 25WV	2
13-C10	EC320051	Elect. 10μF 16WV	2
13-C11	EC290531	VFM 100PF(K) 50WV	2
13-C12	EC329771	Elect. 47μF 6.3WV	2
13-C13	EC220994	Elect. 10μF 25WV	2
13-C14	EC336104	Elect. 100μF 6.3WV	2
13-C15	EC368370	Mylar 0.15μF(J) 50WV	2
13-C16	EC333562	Mylar 0.18μF(K) 50WV	2
13-C17	EC320051	Elect. 10μF 16WV	2
13-C18	EC423033	VFM 680PF(K) 50WV	2
13-C19	EC220994	Elect. 10μF 25WV	2
13-C20	EC250841	Mylar 0.01μF(J) 50WV	2

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
13-R1, 2	ER336442	Carbon RD1/4 10k(J)	4
13-R3	ER362485	Carbon RD1/4 330k(J)	2
13-R4	ER213300	Carbon RD1/4 680(J)	2
13-R5	ER357570	Carbon RD1/4 150k(J)	2
13-R6	ER212264	Carbon RD1/4 22k(J)	2
13-R7	ER346994	Carbon RD1/4 18k(J)	2
13-R8	ER343078	Carbon RD1/4 2.7k(J)	2
13-R9	ER211320	Carbon RD1/4 1.5k(J)	2
13-R10	ER357456	Carbon RD1/4 2.2k(J)	2
13-R11	ER212883	Carbon RD1/4 4.7k(J)	2
13-R12	ER349942	Carbon RD1/4 8.2k(J)	2
13-R13	ER211757	Carbon RD1/4 100k(J)	2
13-R14	ER357412	Carbon RD1/4 220(J)	2
13-R15	ER211757	Carbon RD1/4 100k(J)	2
13-R16	ER349907	Carbon RD1/4 33k(J)	2
13-R17	ER357456	Carbon RD1/4 2.2k(J)	2
13-R18	ER212681	Carbon RD1/4 330(J)	2
13-R19	ER349784	Carbon RD1/4 390(J)	2
13-R20	ER350100	Carbon RD1/4 68k(J)	2
13-R21	ER212681	Carbon RD1/4 330(J)	2
13-R22	ER336442	Carbon RD1/4 10k(J)	2
13-R23	ER343078	Carbon RD1/4 2.7k(J)	2
13-R24	ER346994	Carbon RD1/4 18k(J)	2
13-R25	ER352045	Carbon RD1/4 3.9k(J)	2
13-R26	ER211465	Carbon RD1/4 1k(J)	2
13-R27	ER349784	Carbon RD1/4 390(J)	2
13-R28	ER336442	Carbon RD1/4 10k(J)	2
13-R29	ER212264	Carbon RD1/4 22k(J)	2
13-R30	ER349784	Carbon RD1/4 390(J)	2

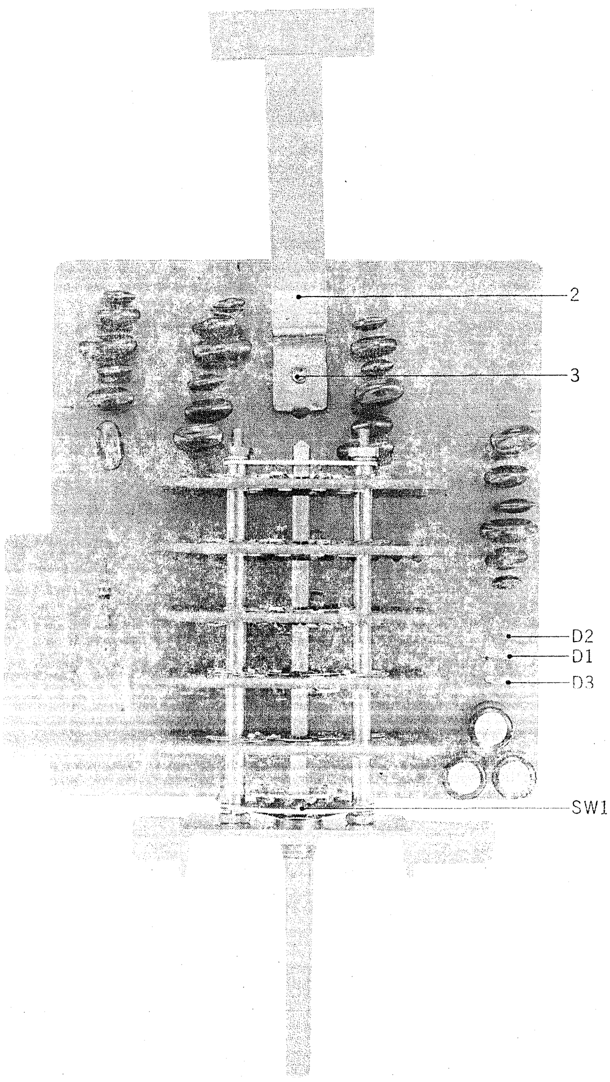
PHOTO OF OSC. P.C. BOARD (TW-5313) BLOCK



OSC. P.C. BOARD (TW-5313) BLOCK

Symbol No.	Parts No.	Description	Q'ty
14-1x	BA565738	Osc. P.C. Board Comp. (TW-5313)	1
14-TR1 to 3	ET520288	Transistor 2SC1247A(V)	3
14-D1 to 3	ED515790	Silicon Diode WG-713	3
14-L1	EO383365	Osc. Coil OT-204	1
14-L2 to 5	EO424866	Ferri Inductor FL7H 1.2 MH(J)	4
14-RL1, 2	EP315461	Relay TECK-19 1500Ω	2
14-TC1 to 4	EC425250	Trimmer/C. A-1P3-3 70 PF	4
		Capacitor, Vertical Type	
14-C1, 2	EC250841	Mylar 0.01μF(J) 50WV	2
14-C3	EC220678	Elect. 47μF 25WV	1
14-C4	EC346522	Plastic Film 2200PF(J) 500WV	1
14-C5 to 8	EC379765	Mylar 0.0027μF(J) 50WV	4
14-C9	EC350684	Elect. 22μF 25WV	1
14-C10, 11	EC336126	Elect. 47μF 25WV	2
14-C12, 13	EC220151	Elect. 100μF 25WV	2
		Resistor, Stopper Type	
14-R1, 2	ER315944	Carbon RD1/4 3.3(J)	2
14-R3	ER427972	Metal Oxide Film 2W 68Ω(K)	1
14-R4	ER304378	Carbon RD1/4 470(J)	1
14-R5	ER211465	Carbon RD1/4 1k(J)	1
14-R6	ER211320	Carbon RD1/4 1.5k(J)	1
14-R7	ER364972	Carbon RD1/4 1.5k(J)	1
14-R8	ER357456	Carbon RD1/4 2.2k(J)	1
14-R9	ER336442	Carbon RD1/4 10k(J)	1

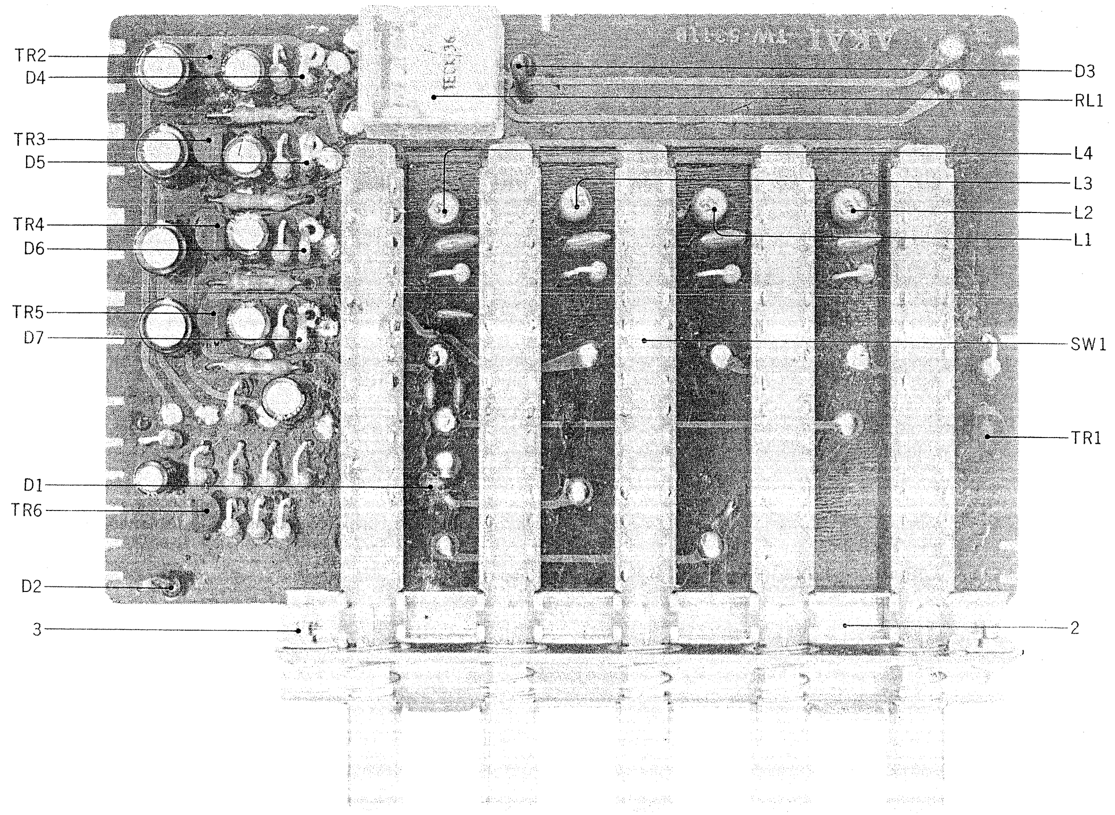
PHOTO OF EQ. SW. P.C. BOARD (TW-5310) BLOCK



EQ. SW. P.C. BOARD (TW-5310) BLOCK

Symbol No.	Parts No.	Description	Q'ty
18-1x	BA565762	EQ. SW. P.C. Board Comp. (TW-5310)	1
18-D1 to 3	ED515790	Silicon Diode WG-713	3
18-SW1	ES591603	Rotary SW. SRE-5183	1
18-2	EZ534172	T. Type Angle	1
18-3	ZS325495	Tapping Screw #2 3x6 (BR)	1
		Capacitor, Vertical Type	
18-C1	EC399734	Mylar 0.12μF(J) 50WV	1
18-C2	EC368357	Mylar 0.056μF(J) 50WV	1
18-C3	EC389485	Mylar 0.018μF(J) 50WV	1
18-C4	EC438041	Mylar 0.082μF(J) 50WV	1
18-C5	EC379192	Mylar 0.039μF(J) 50WV	1
18-C6	EC250841	Mylar 0.01μF(J) 50WV	1
18-C7	EC399734	Mylar 0.12μF(J) 50WV	1
18-C8	EC368357	Mylar 0.056μF(J) 50WV	1
18-C9	EC389485	Mylar 0.018μF(J) 50WV	1
18-C10	EC438041	Mylar 0.082μF(J) 50WV	1
18-C11	EC379192	Mylar 0.039μF(J) 50WV	1
18-C12	EC250841	Mylar 0.01μF(J) 50WV	1
18-C13	EC399734	Mylar 0.12μF(J) 50WV	1
18-C14	EC368357	Mylar 0.056μF(J) 50WV	1
18-C15	EC389485	Mylar 0.018μF(J) 50WV	1
18-C16	EC438041	Mylar 0.082μF(J) 50WV	1
18-C17	EC379192	Mylar 0.039μF(J) 50WV	1
18-C18	EC250841	Mylar 0.01μF(J) 50WV	1
18-C19	EC399734	Mylar 0.12μF(J) 50WV	1
18-C20	EC368357	Mylar 0.056μF(J) 50WV	1
18-C21	EC389485	Mylar 0.018μF(J) 50WV	1
18-C22	EC438041	Mylar 0.082μF(J) 50WV	1
18-C23	EC379192	Mylar 0.039μF(J) 50WV	1
18-C24	EC250841	Mylar 0.01μF(J) 50WV	1
18-C25to27	EC456041	Elect. 33μF 25WV	3
		Resistor, Insulator Type	
18-R1	ER324641	Carbon RD1/4 1k(J)	1
18-R2	ER345712	Carbon RD1/4 22k(J)	1

PHOTO OF SELECTOR P.C. BOARD (TW-5311) BLOCK

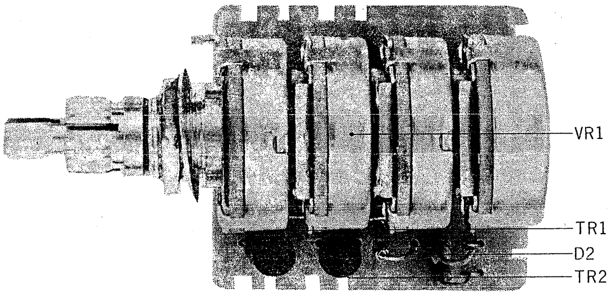


SELECTOR P.C. BOARD (TW-5311) BLOCK

Symbol No.	Narts No.	Description	Q'ty
19-1x	BA565773	Selector P.C. Board Comp.	
		(TW-5311)	1
19-TR1	ET515880	Transistor 2SA696(C)(D)	1
19-TR2 to 6	ET453486	Transistor 2SC711(E)(F)	5
19-D1to3	ED494583	Silicon Diode 10D05	3
19-D4 to 7	ED520762	Zener Diode YZ-088A	4
19-L1 to 4	EO575482	Ferri Inductor FL7H 150μH(J)	4
19-SW1	ES565536	Push SW. 5FST-50U-773-3	1
19-RL1	EP383321	Relay TECK-36 DC22V 1000Ω	1
19-2	EZ549977	SW. Base A	1
19-3	ZS323728	ISO Screw, binding head 3x5	2
		Capacitor, Vertical Type	
19-C1 to 4	EC302297	Mylar 0.018μF(K) 50WV	4
19-C5 to 7	EC250604	Mylar 0.001μF(K) 50WV	3
19-C8	EC220612	Elect. 33μF 25WV	1
19-C9	EC220994	Elect. 10μF 25WV	1
19-C10	EC220612	Elect. 33μF 25WV	1
19-C11	EC220994	Elect.10μF 25WV	1
19-C12	EC220612	Elect. 33μF 25WV	1
19-C13	EC220994	Elect. 10μF 25WV	1
19-C14	EC450527	Elect. 4.7μF 25WV	1
19-C15	EC220994	Elect. 10μF 25WV	1
19-C16	EC220612	Elect. 33μF 25WV	1
19-C17	EC220994	Elect. 10μF 25WV	1

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
19-R1	ER346601	Carbon RD1/4 47k(J)	1
19-R2	ER357456	Carbon RD1/4 2.2k(J)	1
19-R3	ER364948	Carbon RD1/4 3.3k(J)	1
19-R4	ER429996	Carbon RD1/4 470k(J)	1
19-R5	ER357535	Carbon RD1/4 39k(J)	1
19-R6	ER364948	Carbon RD1/4 3.3k(J)	1
19-R7	ER429996	Carbon RD1/4 470k(J)	1
19-R8	ER357535	Carbon RD1/4 39k(J)	1
19-R9	ER364948	Carbon RD1/4 3.3k(J)	1
19-R10	ER429996	Carbon RD1/4 470k(J)	1
19-R11	ER357535	Carbon RD1/4 39k(J)	1
19-R12	ER364948	Carbon RD1/4 3.3k(J)	1
19-R13	ER429996	Carbon RD1/4 470k(J)	1
19-R14	ER357535	Carbon RD1/4 39k(J)	1
19-R15	ER357456	Carbon RD1/4 2.2k(J)	1
19-R16	ER362441	Carbon RD1/4 1.8k(J)	1
19-R17	ER211465	Carbon RD1/4 1k(J)	1
19-R18	ER213030	Carbon RD1/4 5.6k(J)	1
19-R19to22	ER352045	Carbon RD1/4 3.9k(J)	4

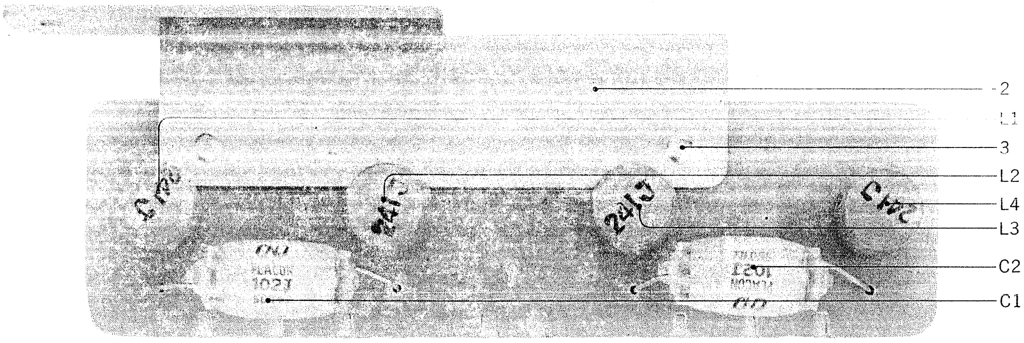
PHOTO OF VOL. P.C. BOARD (TW-5323) BLOCK



VOL. P.C. BOARD (TW-5323) BLOCK

Symbol No.	Parts No.	Description	Q'ty
21-1x	BA570543	Vol. P.C. Board Comp. (TW-5323)	1
21-TR1, 2	ET453486	Transistor 2SC711 (E)(F)	2
21-D1, 2	ED520762	Zener Diode YZ-088A	2
21-VR1	EV570554	Double/Vol. KJ-60R, 10 kBx4	1
		Resistor, Insulator Type	
21-R1	ER443790	Carbon RD1/4 470k(J)	1
21-R2, 3	ER211465	Carbon RD1/4 1k(J)	2
21-R4	ER443790	Carbon RD1/4 470k(J)	1

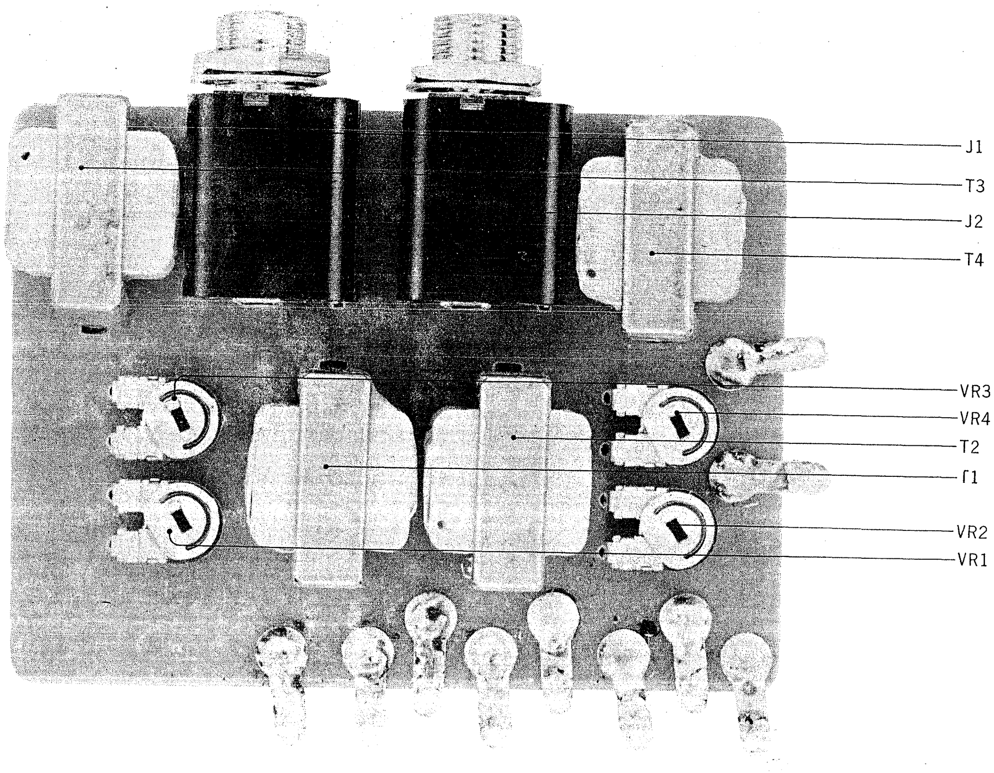
PHOTO OF DUMMY P.C. BOARD (TW-5315) BLOCK



DUMMY P.C. BOARD (TW-5315) BLOCK

Symbol No.	Parts No.	Description	Q'ty
22-1x	BA565784	Dummy P.C. Board Comp. (TW-5315)	1
22-L1 to 4	EO565558	Ferri Inductor FL9H 240μH(J)	4
22-2	EZ549808	Dummy P.C. Board Angle	1
22-3	ZS323728	Screw, binding head 3x5	2
22-C1, 2	EC565560	Plastic Film/C. 1000PF (J) 250WV	2

PHOTO OF HEADPHONE P.C. BOARD (TW-5312) BLOCK



HEADPHONE P.C. BOARD (TW-5312) BLOCK

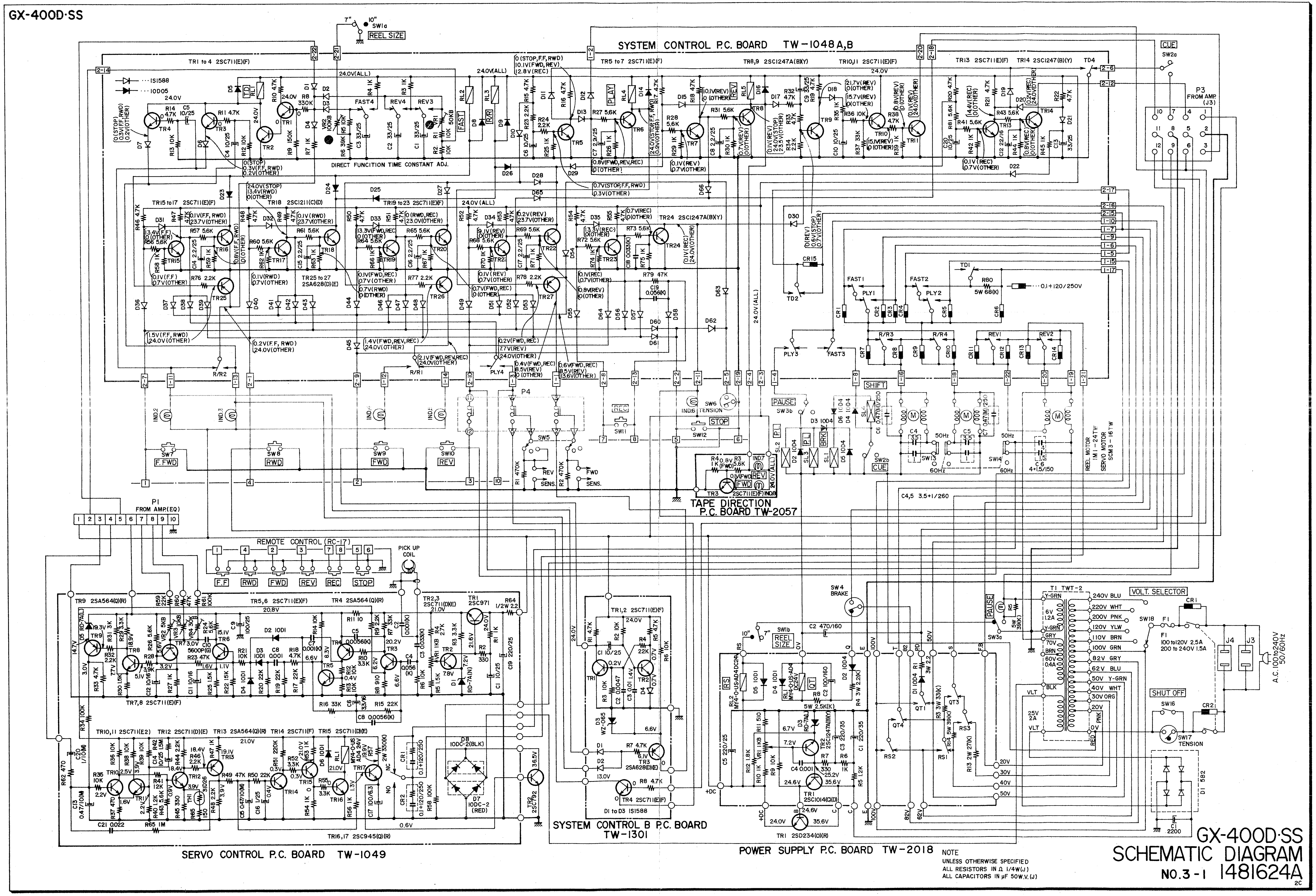
Symbol No.	Parts No.	Description	Q'ty
23-1x	BA565795	Headphone P.C. Board Comp.	1
23-T1to4	BT247768	Headphone Trans. N19-5921S	4
23-VR1 to 4	EV464207	Semi-fixed/Vol. V8K4-1 5 dB	2
23-J1, 2	EJ437321	Jack, 3P Molded 3PMJ1P	2

AMPLIFIER ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
24-1x	BZ565751	Jack Plate Block Comp.	TW-3	1
24-5x	ER213873	Carbon/R. RD1/4 150k(J) (Insu. type)	35-9-5	4
24-6x	ER345756	Carbon/R. RD1/4 68k(J) (Inus. type)	35-9-5	4
24-7x	ER214536	Carbon/R. RD1/4 6.8k(J)	35-9-5	4
24-8x	ER430288	Carbon/R. RD1/4 680(J)	35-9-5	4
24-9x	ER213647	Carbon/R. RD1/4 10k(J)	35-9-5	4
24-10x	ER345712	Carbon/R. RD1/4 22k(J)	35-9-5	4
24-11x	ES446973	Slide SW. SL-242B4D	25-3-51	1
24-14x	EZ549922	Amp. Chassis D, w/prop	TW-5301	1
24-16x	BA570543	Vol. P.C. Board Comp.	TW-5323	1
24-17x	EV565470	Double/Vol. DJ10A 50 kAx2	36-3-52	4
24-19x	ER329308	Carbon/R. RD1/4 47k(J) (Insu. type)	35-9-5	4
24-27x	EJ565492	Mic. Jack 2PMJIP	31-2-37	4
24-42x	EZ566032	Amp. Chassis E	TW-5302	1
24-50x	EJ299823	Mate-N-Lock Cap Housing 6P 1-480276-0	52-1-2	1
24-56x	EJ347670	Multi-Jack-3 22p 3250-022-001S	31-4-13	4
24-57x	EZ441775	Osc. Shield Plate	KF-5003	1
24-58x	EZ441854	P.C. Board Retainer	KF-5013	1
24-59x	EZ549775	SW. Base C	TW-5307	1
24-60x	ES565446	Lever SW. S-J6398 (Monitor)	25-12-12	1
24-61x	EZ549764	SW. Base B	TW-5306	1
24-62x	ES565457	Push SW. 1FST-4U-322-3 (Tape Select.)	25-5-114	1
24-63x	EZ549786	Panel Support B	TW-5308	2
24-64x	EZ549797	Lamp Holder	TW-5316	4
24-65x	EZ428117	Rubber Bushing	AA-801	4
24-66x	EL565468	Pilot Lamp (L/T) 24V 35MA (150M/Mx2)	28-2-24	4
24-67x	EZ566054	Shield Plate	TW-5309	1
24-71x	MH441786	P.C. Board Retaining Prop	KF-5004	3
24-72x	EZ411287	P.C. Board Retaining Parts	LF-5027	2
24-75x	SP578891	Amp. Panel E	TW-5303	1
24-76x	SP566043	Amp. Panel D (Black)	TW-5303	1
24-82x	EM570216	VU Meter R-55 437B16 (Yellow)	46-2-20	4
24-83x	EM565503	VU Meter R-55 437B17 (Blue)	46-2-19	4
24-88x	SK549843	Double Knob A	TW-6304	5
24-89x	SK549865	Double Knob Rubber Ring A	TW-6306	5
24-90x	SK549876	Double Knob B (Upper)	TW-6307	5
24-91x	SK548627	Double Knob Upper Rubber Ring	MU-6215	5
24-92x	SK531224	Push Button Knob	91-5051	5
24-93x	SK569474	Push Button Knob B	91-5051	1
24-94x	AA545905	Push Button Bush	98-5061	6
24-95x	SZ457806	Lens Holder	55-5013	4
24-96x	EL569878	Lamp Lens A-2	55-5011	4
24-97x	EL549810	Lamp Mask	TW-5320	2

FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
25-1x	SP565637	Mech. Panel Block Comp.	TW-3	1
25-21x	SM549742	Name Plate TW-3	TW-6303	1
25-23x	SM549753	Symble Mark TW-3	TW-6302	1
25-51x	SP566177	Control Panel 3	TW-6015	1
25-66x	SK549933	Selector Knob E	TW-6310	2
25-77x	SP578891	Amp. Panel E	TW-5303	1
25-78x	SP566043	Amp. Panel D (Black)	TW-5303	1
25-82x	EM570216	VU Meter R-55 437B16 (Yellow)	46-2-20	4
25-83x	EM565503	VU Meter R-55 437B17 (Blue)	46-2-19	4
25-88x	SK549843	Double Knob A	TW-6304	5
25-89x	SK549865	Double Knob Rubber Ring A	TW-6306	5
25-90x	SK549876	Double Knob B	TW-6307	5
25-91x	SK548627	Double Knob Upper Rubber Ring	MU6215	5
25-92x	SK531224	Push Button Knob	91-5051	5
25-93x	SK569474	Push Button Knob B	91-5051	1
25-101x	AA545905	Push Button Bush	98-5061	6
25-102x	SZ457806	Lens Holder	55-5013	4
25-103x	EL569878	Lamp Lens A-2	55-5011	4
25-104x	EL549810	Lamp Mask	TW-5320	2

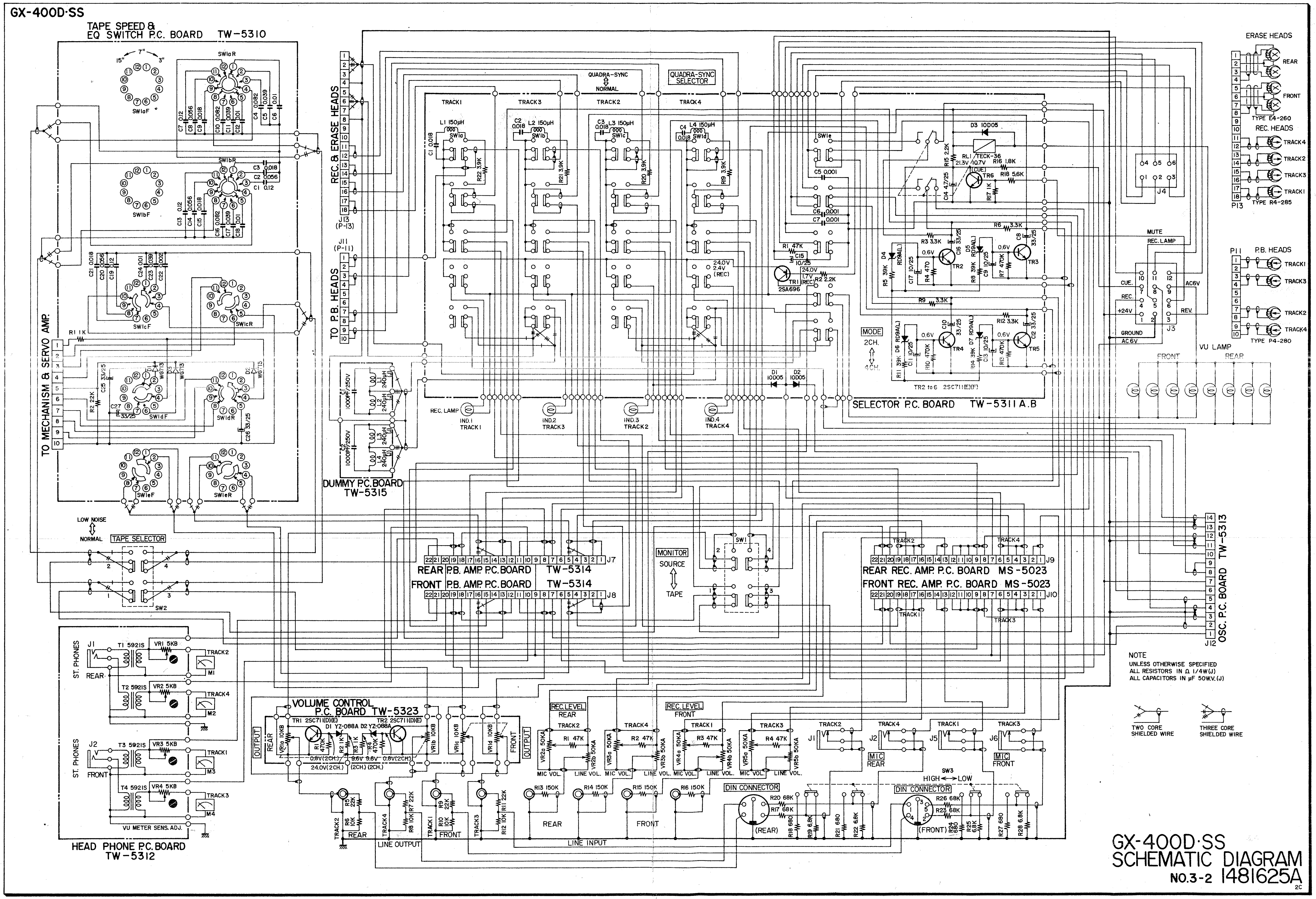

GX-400D·SS
SYSTEM CONTROL P.C. BOARD TW-1048A,B
REEL SIZE
SW1a
CUE
SW2a
P3
FROM AMP (J3)
DIRECT FUNCTION TIME CONSTANT ADJ.
FAST
R/R
PLAY
REV
F.FWD
RWD
FWD
REV
SW7
SW8
SW9
SW10
P4
SW5
SENS.
SW6 TENSION
STOP
SW11
SW12
REC
PAUSE
SW3b
SHIFT
SW2b
CUE
SW13
SW14
REEL MOTOR 1M1-24TV
SERVO MOTOR SCM3-16TW
TAPE DIRECTION P.C. BOARD TW-2057
P1
FROM AMP (EQ)
REMOTE CONTROL (RC-17)
F.F
RWD
FWD
REV
REC
STOP
PICK UP COIL
SERVO CONTROL P.C. BOARD TW-1049
SYSTEM CONTROL B P.C. BOARD TW-1301
SW4 BRAKE
SW1b
REEL SIZE
POWER SUPPLY P.C. BOARD TW-2018
T1 TWT-2
VOLT. SELECTOR
SW18
F1 100 to 120V 2.5A 200 to 240V 1.5A
J4
J3
A.C. 100 to 240V 50/60Hz
SHUT OFF
SW16
SW17 TENSION
D1 S82
C1 2200
PAUSE
SW3a
240V BLU
220V WHT
200V PNK
120V YLW
110V BRN
100V GRN
82V GRY
62V BLU
50V Y-GRN
40V WHT
30V ORG
20V
0V
25V 2A
VLT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

GX-400D·SS
SCHEMATIC DIAGRAM

NO.3-1 1481624A

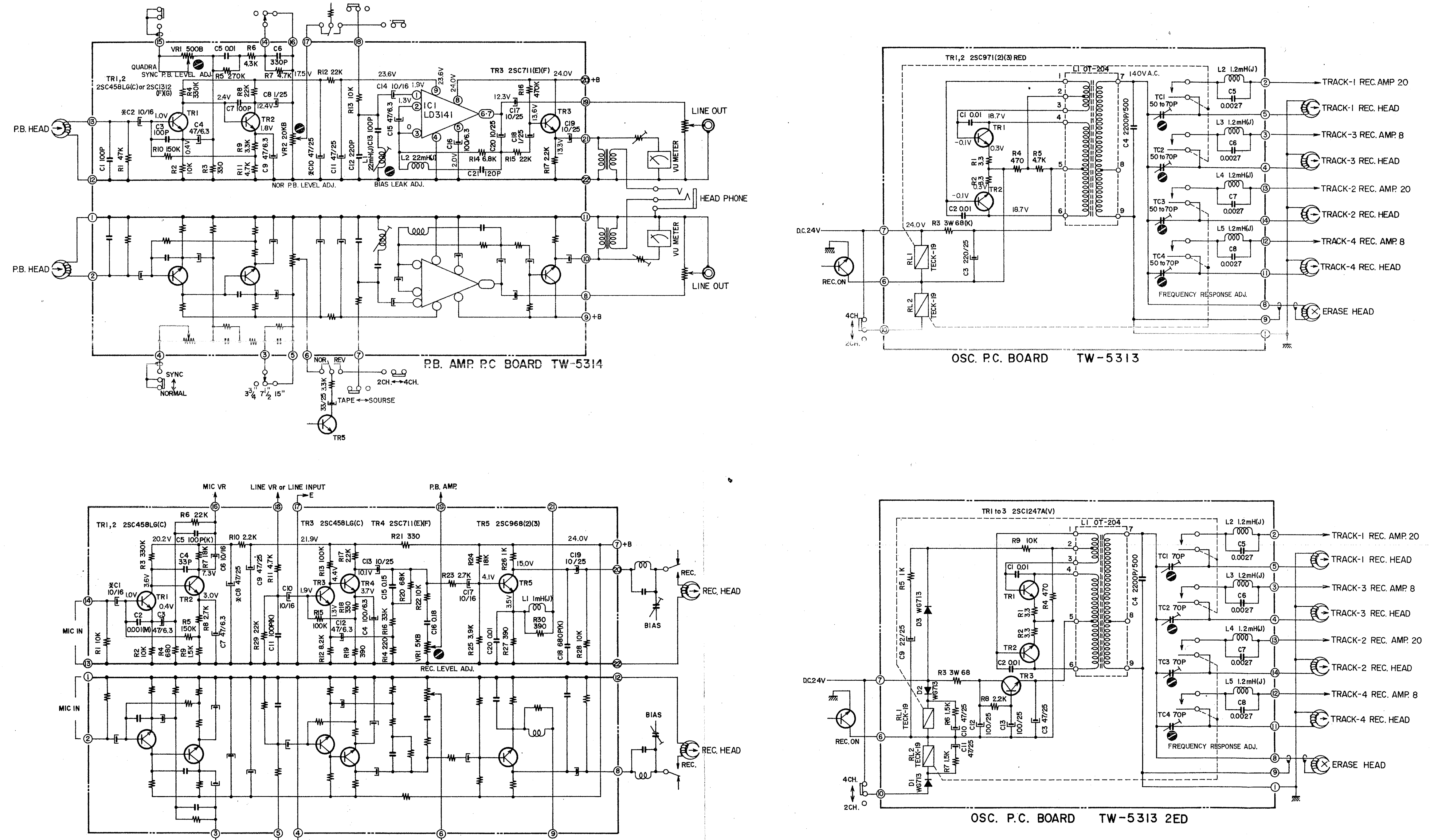
2C


GX-400D·SS
TAPE SPEED & EQ SWITCH P.C. BOARD TW-5310
TO MECHANISM & SERVO AMP
REC. & ERASE HEADS
J13 (P-13)
TO P.B. HEADS
J11 (P-11)
DUMMY P.C. BOARD TW-5315
QUADRA-SYNC ⇕ NORMAL
QUADRA-SYNC SELECTOR
TRACK1
TRACK3
TRACK2
TRACK4
REC. LAMP
IND.1 TRACK1
IND.2 TRACK3
IND.3 TRACK2
IND.4 TRACK4
SELECTOR P.C. BOARD TW-5311 A.B
MODE 2CH. ⇕ 4CH.
TR2 to 6 2SC711(E)(F)
RL1 TECK-36
ERASE HEADS
REAR
FRONT
TYPE E4-260
REC. HEADS
TYPE R4-285
P13
P11
P.B. HEADS
TYPE P4-280
J4
J3
MUTE
REC. LAMP
CUE.
REC.
+24V
GROUND
AC6V
REV.
VU LAMP
LOW NOISE ⇕ NORMAL
TAPE SELECTOR
SW2
REAR P.B. AMP P.C. BOARD TW-5314
FRONT P.B. AMP P.C. BOARD TW-5314
J7
J8
MONITOR
SOURCE ⇕ TAPE
SW1
REAR REC. AMP P.C. BOARD MS-5023
FRONT REC. AMP P.C. BOARD MS-5023
J9
J10
OSC. P.C. BOARD TW-5313
J12
ST. PHONES
REAR
FRONT
VU METER SENS. ADJ.
HEAD PHONE P.C. BOARD TW-5312
VOLUME CONTROL P.C. BOARD TW-5323
OUTPUT
LINE OUTPUT
REC. LEVEL REAR
REC. LEVEL FRONT
MIC VOL.
LINE VOL.
LINE INPUT
DIN CONNECTOR
(REAR)
(FRONT)
MIC REAR
MIC FRONT
SW3 HIGH ←→ LOW
TWO CORE SHIELDED WIRE
THREE CORE SHIELDED WIRE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50WV.(J)

GX-400D·SS
SCHEMATIC DIAGRAM
NO.3-2 1481625A
2C

GX-400D·SS


P.B. HEAD
QUADRA SYNC P.B. LEVEL ADJ.
TR1,2 2SC458LG(C) or 2SC1312 (F)(G)
TR3 2SC711(E)(F)
IC1 LD3141
NOR P.B. LEVEL ADJ.
BIAS LEAK ADJ.
LINE OUT
VU METER
HEAD PHONE
SYNC
NORMAL
3¾ 7½ 15"
NOR REV
2CH.↔4CH.
TAPE↔SOURSE
TR5
P.B. AMP. P.C BOARD TW-5314
TR1,2 2SC971(2)(3) RED
L1 OT-204
140V A.C.
D.C.24V
REC.ON
4CH.
2CH.
TRACK-1 REC. AMP. 20
TRACK-1 REC. HEAD
TRACK-3 REC. AMP. 8
TRACK-3 REC. HEAD
TRACK-2 REC. AMP. 20
TRACK-2 REC. HEAD
TRACK-4 REC. AMP. 8
TRACK-4 REC. HEAD
ERASE HEAD
FREQUENCY RESPONSE ADJ.
OSC. P.C. BOARD TW-5313
MIC VR
LINE VR or LINE INPUT
P.B. AMP.
TR1,2 2SC458LG(C)
TR3 2SC458LG(C) TR4 2SC711(E)(F)
TR5 2SC968(2)(3)
MIC IN
REC. LEVEL ADJ.
REC.
REC. HEAD
BIAS
TR1 to 3 2SC1247A(V)
OSC. P.C. BOARD TW-5313 2ED

REC. AMP. P.C. BOARD TW-5023

NOTE
1. UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)
2. ※ MARK INDICATES LOW LEAKAGE CAPACITORS

GX-400D·SS SCHEMATIC DIAGRAM

NO.3-3 1481626A

2C

INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
AA545905	24-94x	EC379192	18-C11	ER212883	11-R5	ET446736	13-TR5		
AA545905	25-101x	EC379192	18-C17	ER212883	11-R7,8	ET453486	10-TR11		
BA565705	10-1x	EC379192	18-C23	ER212883	12-R7	ET453486	11-TR1,2		
BA565716	11-1x	EC379765	14-C5to8	ER212883	12-R11	ET453486	11-TR4		
BA565738	14-1x	EC383501	13-C2	ER212883	13-R11	ET453486	13-TR4		
BA565740	12-1x	EC389485	18-C3	ER213030	19-R18	ET453486	19-TR2to6		
BA565762	18-1x	EC389485	18-C9	ER213300	13-R4	ET453486	21-TR1,2		
BA565773	19-1x	EC389485	18-C15	ER213647	24-9x	ET515880	19-TR1		
BA565784	22-1x	EC389485	18-C21	ER213873	24-5x	ET520288	14-TR1to3		
BA565795	23-1x	EC399690	13-C4	ER214536	24-7x	ET538110	11-TR3		
BA565806	13-1x	EC399734	18-C1	ER304378	14-R4	EV398812	13-VR1		
BA570543	21-1x	EC399734	18-C7	ER306360	12-R14	EV464207	23-VR1to4		
BA570543	24-16x	EC399734	18-C13	ER315944	14-R1,2	EV497698	12-VR2		
BH565661	1-1x	EC399734	18-C19	ER324641	18-R1	EV497711	12-VR1		
BP565683	8-1x	EC423033	13-C18	ER329308	24-19x	EV565470	24-17x		
BP565694	8-2x	EC425250	14-TC1to4	ER336442	11-R2, 3	EV570554	24-VR1		
BT247768	23-T1 to 4	EC432810	12-C2	ER336442	11-R6	EZ411287	24-72x		
BZ565751	24-1x	EC432810	13-C1	ER336442	12-R2	EZ428117	24-65x		
EA441685	1-34x	EC438041	18-C4	ER336442	12-R13	EZ441775	24-57x		
EA496258	12-2	EC438041	18-C10	ER336442	13-R1,2	EZ441854	24-58x		
EC220151	14-C12,13	EC438041	18-C16	ER336442	13-R22	EZ534172	18-2		
EC220612	19-C8	EC438041	18-C22	ER336442	13-R28	EZ549764	24-61x		
EC220612	19-C10	EC450055	12-C8	ER336442	14-R9	EZ549775	24-59x		
EC220612	19-C12	EC450055	12-C18	ER343078	13-R8	EZ549786	24-63x		
EC220612	19-C16	EC450527	19-C14	ER343078	13-R23	EZ549797	24-64x		
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EC220994	13-C13	ED494583	19-D1to3	ER346601	12-R1	EZ566054	24-67x		
EC220994	13-C19	ED515790	14-D1to3	ER346601	19-R1	HA549944	1-21x		
EC220994	19-C9	ED515790	18-D1to3	ER346994	13-R7	HE563220	1-19x		
EC220994	19-C11	ED520762	19-D4to7	ER346994	13-R24	HP513281	1-17x		
EC220994	19-C13	ED520762	21-D1,2	ER349784	13-R19	HR565672	1-18x		
EC220994	19-C15	ED555895	11-D3	ER349784	13-R27	MH441786	24-71x		
EC220994	19-C17	ED557447	10-D64to66	ER349784	13-R30	SK531224	24-92x		
EC250604	19-C5to7	ED557447	11-D1,2	ER349907	13-R16	SK531224	25-92x		
EC250841	12-C5	ED557447	11-D4	ER349942	13-R12	SK548627	24-91x		
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EC250841	18-C18	EJ565492	24-27x	ER357456	12-R8	SK549865	25-89x		
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EC290520	12-C7	EL569878	25-103x	ER357456	19-R15	SK569474	25-93x		
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